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Clinical Lectures.

EXERCISE IN CHILDHOOD AND YOUTH.

By J. MADISON TAYLOR, A. M., M.D.

PART OF A LECTURE DELIVERED AT THE
FRANKLIN INSTITUTE, PHILADA.,
DEC. 7, 1891.

Gentlemen:—The normal states of the infant are feeding and sleeping. There is little more needed during the first year of life than comfortable, clean surroundings and abundant food at suitable intervals, supplemented by ample rest. Plenty of air should be allowed and not much light. The little one should be left alone as much as possible. In certain founding asylums abroad, I am told the babies are fed and put into well ventilated, darkened compartments immediately, and under this system they seem to do best. Distinct harm results from over-much attention, and the excitement which comes from fond parents or curious relatives is one of the most hurtful influences exerted in early infancy. Absolute freedom should be allowed to the limbs, yet it is true that certain savage nations keep their infants in rigid dressings until they are able to make attempts at walking, and among such there result exceedingly fine physiques. This custom on the part of these savages may reasonably be a hint to us that enforced rest to the limbs is wiser after all. Then, as the child gives distinct evidence of wishing to be more aggressive in its movements, it will probably be high time to encourage it. At any rate, in the second year freedom might be allowed, and a good plan is to place the infant upon a soft substance on an even surface, like the floor, and encourage all spontaneous movements, and to supply it with the simplest

kinds of toys. Try few educational measures yet.

With the eruption of the first set of teeth, about the end of the second year, a more varied diet is admissible also a wider range of object lessons, though these should be still of the simplest. At the first plain indication of weariness the child should be encouraged to sleep. As the motor energies become more plainly manifested, so may they be cautiously aided and abetted. In all this be guided by the greatest caution lest unwise interference be hurtful. Take lessons from experience, especially of the natural promptings of the youngster, and beware of all fine-spun theories of childless philosophers and narrow minded grandparents. As soon as the child makes definite efforts at standing, reaching out for objects, etc., supply it with harmless toys, especially washable ones which can be kept chemically clean, as of rubber or metal. Let it exercise its senses; its muscular sense, teaching it dimensions of external objects, its eye in judging of distances and colors, etc., as well as the co-ordination of its limbs. Let it pull things about, and put them into its mouth. All animals wish to taste or put objects to their mouth, because the lips are equipped with the most sensitive nerves, and here it can obtain most accurate impressions. The hands have not yet learned nicety of touch, but by handling blocks, etc., soon accuracy comes.

The eye in the child is a perfect organ, and so, indeed, is the digestive tract, with limitations, of course, as to capacity. Not so, however, the limbs and trunk, which have much to learn and large need for exercise. It is best that the objects which immediately surround the babe should be of uncomplicated shape and color, such as the dawning comprehension may compass and use for comparison as contact is had with more complex ones. Bear in mind

that the best human animals come from simplest households, as nearly as possible to nature, whose phenomena offer the best object lessons. Civilized comforts and safeguards are not to be despised, but these should not offer elements for confusion. A child is best left much alone. Avoid artificial constraints. When wearied out with joyous spontaneous movements which quicken its circulation and expand its lungs, and when feasted with slow contemplation of surrounding objects, it should be able to lie down comfortably and sleep.

By and by the bewilderment of early impressions will be replaced by a growing confidence in the maturing powers and values of surrounding objects. All childhood should be passed in a series of simple object lessons. Some small encouragement is very well, but no distinct teacher of any kind is needed until the motive powers are well established and a fair stock of intelligence has been acquired by unaided mental digestion.

The homunculus when fully able to cruise about the room or garden may do so, clambering up and tumbling down. So shall there come consciousness of its own powers and limitations, so learn to save its own head with the hands and gleefully secure coveted objects. Thus little by little stores of information may be acquired, a knowledge which is all its own, because come at through abundant slow contemplation in its own time and manner and by its own unaided powers. These powers, too, grow by what they feed on. Selection is thus exercised; eye and hand and leg are brought to the fullness of their strength, and the highest human faculty, judgment, is soon or late acquired. In the mere bodily activities a healthy child may be trusted to do enough and not too much. If urged beyond its own choosing, the element of excitement comes in, always a confusing factor in measures or results.

Soon the greatest joy will be to play with others of its kind. Impressions from inanimate and other objects will no longer satisfy. Then comes the period of childish games, when running, shouting, rolling about, give tone to muscle and prompt conduction to brain. The cerebral part of this partnership, by the way, is first largely limited to balancing and the motor functions generally. When in the course of progress a certain time comes, by common consent, wherein

systematic teaching should be had, then must the bodily powers and parts receive the closest scrutiny. No school system is adequate which does not consider the training of the body as of almost equal consequence with the mind. I venture to assert with small fear of contradiction that no school is fit for your children or for mine which does not supply intelligent medical supervision. Among the more comfortable classes this will be supplied by the family physician, who may have at one time or another sufficiently looked after our boys or girls. When this is not done among those who use the large public schools, a skilled medical supervisor should be provided who shall pass judgment upon every single scholar. Thus will be brought to light heretofore unrecognized weaknesses, and, moreover, a surprising number of deformities; or in the needful repetitions of these examinations hurtful tendencies may be early recognized. In the matter of the eye supervision is becoming pretty generally exercised, and much good already accomplished thereby. Of even more importance, however, is the question of weak hearts, unsymmetrical backs and limbs, narrow chests and twisted pelves. Soon or late calisthenic exercises, military drill, class singing, or some systematic form of body training will be a regular part of the day's instruction in most schools. A steady advancement is being made in the wisdom of educational authorities in all lands. To be sure, we may never attain to that almost perfect system of education pursued by the early Greeks the products of which are types of physical and mental beauty which shall serve as models for all time. Then, the pedagogue, the man who walked and talked with his scholars, was equipped with wisdom as well as learning, and capable of intelligently directing the activities of his pupils in body as well as mind. We may hope to have more of this open air object teaching by stream and field, which now is used to supplement the didactic in many large schools and colleges. As parents become more thoroughly aware of the economic needs of educational measures, they will demand as much, or more, of physical care for their children at the hands of instructors.

Let us turn for a moment to the subject of spinal deformities. This is a common result of the ordinary school life, when

either unduly prolonged or unprovided with proper safeguards in the way of daily supplies of opportunities for exercise. I quote from Dr. J. K. Young, a well known orthopedist of this city: "The great majority of cases of this curvature originate in children from the age of five or six and upward and young persons who have been recently in school. This might be thought a mere coincidence, for the school period is necessarily that of development and curvature is a disorder of development. But there is evidence to show that school work and customs are genuine causes, not the sole causes certainly, but very prominent ones. The origin of latent curvature depends chiefly on two things, weakness of the muscles which supports the spine and bad position of the body. Weakness, though not a necessary circumstance, is an extremely common and important one. A bad position constantly maintained will twist the most athletic frame."

Again, Dr. Buckminster Brown says: "A most pernicious habit, and one which I have very often noticed in school girls, and less often in boys, is that while we are talking to them or during recitations, they stand on one leg. This position is assumed involuntarily, and it is almost always on one and the same leg to which the weight is thrown. The effect of this is easily understood. One side of the pelvis is lifted up, curving the spine on the loins; the opposite leg is advanced in front of the other, twisting the pelvis and rotating the vertebræ. Of course, the curve of compensation takes place between the shoulders; one is depressed, the shoulder blade gradually projecting, and with the change, and, in fact, assisting to produce it, occurs the spinal twist."

These various warping agents which are inevitable among children confined to the school seats, or to the small variation of standing at their tasks, produce a large amount of actual damage, which remains as seed from which trouble grows, or simply impairs constitutional vigor. A large proportion of these are transient effects and overcome by wholesomer living later, hence never are recognized *per se*. Statistics on the subject are not yet sufficient, a single illustrative instance, however, is significant:

Guillaume, in 1864, examined the schools of Neufchâtel, and found in 350

boys, 18 per cent. affected with spinal warping, and among 381 girls, 41 per cent. Careful searching in other schools would give at least analogous results. Now, what is the preventive for this. I quote the uniform opinion of several authorities, who one and all recommend varied muscular activities taken at suitable times as the most important measure. The best are vigorous outdoor movements, games, leaping, running, climbing, and all sorts of hard play, the more varied the better. These should, of course, be not unduly prolonged; especially for girls, it is harmful for them to make large scores at the skipping rope and long match games at tennis or even croquet. Indeed, the best forms of exercise for children are those which speedily shift from consecutiveness and interspersed with ample periods of rest. In girls there exists an inherent, oftentimes ineradicable indolence, a delight in sacrificing themselves to the proprieties, a misguided sense of decorum which early hinders their right indulgence in active sports. In this their mothers encourage them blindly; even the best of mothers. This early subordinating of their physical impulses leads also to a disregard of the calls of nature, coupled with a silly squeamishness about attending to prompt evacuations and lays the train for lifelong discomforts and disturbances. No one but an active practitioner of medicine can believe how universal is the prevalence of torpid bowels and inactive bladders among the female sex. They seem to revel in the discomforts which arise from the neglect of these most vitally important functions. Again, this inactivity lessens their taste for water, since they rarely sweat as they should daily do. Hence, in unnumbered ways it is important to insist upon much activity among children.

The ordinary sports of boyhood and youth are invaluable. If ample opportunities by stream and field are afforded excellent results follow in healthful and beautiful forms. The tendency is, however, to work along lines of least resistance to specializations and to emphasize already well-marked aptitudes.

This pursuit of outdoor competitive sports is necessarily limited to very few, Dr. Sargent says to probably less than one per cent. of our vigorous young men. Even among the members of athletic organiza-

tions only 10 per cent. are really active. He goes on to say: "The cause for so little general interest in athletics is due to the increasing tendency with us, as a people, to pursue sport as an end in itself rather than as a means to an end." In making excellence in the achievement the primary object of athletic exercises we rob them of half their value in various ways—by (1) increasing the expense of training; (2) by increasing unduly the time devoted to practice; (3) by reducing the number of active competitors; (4) by relying upon natural resources rather than upon cultivated material; (5) by depriving the non-athletic individuals of incentive to physical exertions; (7) by depriving them of their efficacy as a means to health. He points out the fact that the harmonious development of the physique and the building up and broadening out of highest types of manhood and womanhood ought to offer inducements enough to work for.

As to how this may be best accomplished deserves special and constant study—not only for means but incentives. When obvious defects exist judicious, skilled direction is needed in such matters. At Amherst systematic class work obtains good results. In Princeton this was done in my day by compulsory drill work with Indian clubs, etc. Military drill has immense value. In the German Turngemeinde all over this land as well as the Fatherland classes from the youngest to the oldest drill in calisthenics regularly and these are supplemented by outdoor work—long walks in vacation times and to a moderate degree field sports. The best results come from systematic measures.

For those who need remedial training by movements the system of Ling is beyond all praise. A host of followers have taken up his suggestions and variously elaborated them and claimed originality for their view, more or less falsely indeed, but all acting upon his clearly defined principles. The Delsarte system of expression promises to be a useful corollary to physical training.

One conclusion stands out clear and distinct from all this inquiry. It may be accepted as almost an axiom that no instance of organic lesion is yet demonstrated to be the direct and sole result of bodily exercises or competitions in one adequately trained.

NEW OUTLOOKS IN THE PROPHYLAXIS AND TREATMENT OF TUBERCULOSIS.*

By FRANCES P. KINNICUTT, M. D.

NEW YORK CITY.

The lecturer introduced his subject by an allusion to chemotaxis and phagocytic immunity, and their important bearing upon the subject of the prophylaxis of disease. Prophylactic measures directed against tuberculosis had for their object, to destroy the vitality of the bacillus outside of the body, to minimize the sources of infection, and to render the tissues insensible to its presence. It was not long after Koch's discovery of the tubercle bacillus, in 1882, that it was observed that the bacilli were not found in the air exhaled by tuberculous patients, but that they were abundant in the sputum, and that dried sputum was the most common source of infection. The stools of human beings afflicted with tuberculosis of the bowel are a less frequent, but an undoubted source of infection, as are also milk and meat from tuberculous animals. Experiments carried on in Germany upon the dust taken from hospital wards, living rooms of phthisical patients and other places, have yielded interesting results as to the dissemination of tuberculosis. Out of 94 animals inoculated with dust from the hospitals, 20 became tuberculous, and virulent bacilli were obtained from 15 out of 21 medical wards. Negative results were obtained on the other hand, from dust of surgical wards, and from the streets and inhalation rooms which were investigated. Virulent bacilli were obtained in a private house six weeks after the death of an inmate who had been suffering from tuberculosis. The collective investigation committee of the British Medical Association, in 1883, received, in answer to a series of questions concerning the infectiousness of tuberculosis, 1,078 communications from various medical practitioners. Of these, 673 were to the effect that cases of tuberculosis originating in infection had not come under their notice; while 261 gave what was considered positive proof of its

* Abstract of the Middleton Goldsmith Lecture, which was delivered under the auspices of the New York Pathological Society, at the New York Academy of Medicine, May 11th, 1892.

occurrence, 39 were doubtful, and 105 were negative. There were 192 cases of probable infection of a husband by a wife, and *vice versa*, and in most of these, there was no hereditary predisposition. Very striking facts are brought out by a study of statistics gathered from the Catholic Nursing Orders in 32 convents, during the twenty-five years previous to 1889. The general annual death-rate from tuberculosis is one-seventh to one-fifth of all deaths, but in these convents, the death-rate from tuberculosis alone is shown to be 62.88 per cent., and in some of the convents, it even rose to 75 per cent. The average age at which death occurred was 36.27 years, which is lower by ten years than the average in those trades which are notoriously the most unhealthful. In considering these startling statistics, it is also to be remembered that the health of all persons entering these orders is excellent, as their admission depends upon medical certificates. The speaker said that he had collected a large number of cases illustrating the infectiousness of tuberculosis, several of which he cited. A healthy girl of fourteen years, without hereditary predisposition, contracted tuberculosis from wearing the earrings of a consumptive. A male child, vigorous at birth, had eczema of the abdomen when three years old, but an examination at this time showed no tubercle bacilli here, but about one year later, after sleeping constantly with his consumptive mother, the bacilli were found in the eczematous vesicles.

In considering methods of attacking the tubercle bacilli, one is at once struck with their enormous numbers, thus: Dr. T. Mitchell Prudden, of this city, has computed that 24,460,000 tubercle bacilli are present in the daily sputum from a single phthisical patient. Tuberculous sputum has been dried and kept under the ordinary conditions found in dwelling houses, and has been found to preserve its infectious properties for two and a half months, and other experiments seem to show that its virulence may continue for a period of three years. Most chemical disinfectants exert but a very feeble action upon the tubercle bacillus. A ten per cent. solution of carbolic acid is found to have no effect upon the bacillus in sputum after a period of twenty-four hours, while corrosive sublimate is valueless on account of its coagulating the albuminoids in the

sputum. A ten per cent. solution of creolin, or of aseptol, has no more action than carbolic acid, but lysol in the same strength will sterilize the sputum after an exposure of only twelve hours. These results show that we possess no practical means at present of efficiently disinfecting sputum by chemical agents. The bacilli are usually killed by a temperature of from 90 to 100° C., but simple rinsing of sputum cups with boiling water is not sufficient, and is not without danger to the attendants, as numerous observers report cases of infection of cuts with sputum. Both in hospital and private, paper sputum caps are the safest and the most convenient, as every day the soiled ones are burned, and new ones supplied. Public sentiment should be sufficient to compel the proprietors of hotels and other places of public resort to adopt more stringent measures than at present for cleansing and disinfecting the rooms and preventing the spread of this disease, and legislation is urgently needed which shall provide for a proper inspection of dairies and slaughter-houses. Such a bill will probably be introduced into the legislature of New York state during the present session.

Turning now to the remedial measures, it is found that three possibilities present themselves: (1) The discovery of a method of treatment capable of destroying the bacillus within the body; (2) the discovery of some substance, organic or inorganic, which may deprive the bacillus within the body of its harmful effects; and (3) the discovery of a principle which when introduced into the human economy, will increase the germicidal power of the fluids of the body by stimulating cell activity.

It is supposed that the bacilli in their growth produce in the living tissues, as in artificial cultivations, certain substances, which have various, but always deleterious effects upon the surrounding cells and that among the substances produced by their action, is one which destroys the living protoplasm, and produces a coagulation necrosis, which, in turn, diminishes the supply of nutriment to the bacilli, and checks their development. Koch believes that by the introduction of tuberculin, the extent of this necrosis is increased, and consequently, the nutrition of the bacilli more seriously impaired. Rosenbach, however, denies that tuberculin

possesses any specific action, and claims that the reaction observed after injections of tuberculin is due to general irritation. Similar constitutional disturbances follow the injection of cantharidal salts, or of other bacteria. He believes that when necrosis occurs, it is rather secondary to an acute inflammatory necrosis. William Hunter, of England, and Klebs, of Germany, have conducted experiments with the object of separating the deleterious ingredients of tuberculin from the remedial ones, and Hunter has found, (1) that the remedial and inflammatory actions of tuberculin are connected with the presence of certain albumoses, while the fever-producing agent is a non-albuminous substance; (2) that by chemical methods, the fever-producing agent can be removed; (3) that the fever has nothing to do with the remedial action; (4) that a truly remedial action resides in an albuminous substance derived from the plasma of the bacilli themselves, and not from their action on the surrounding tissues; (5) that this substance can be isolated. The principal modifications of tuberculin with which he has experimented are, A, C, OB, and B. A differs but slightly from tuberculin; C causes scarcely any local inflammation, but produces a high fever; OB contains the remedial agent, but does not cause the usual constitutional disturbance; and B contains the remedial properties of OB, and also excites local inflammation, but produces no ill effects. Klebs' experiments though undertaken quite independently, have yielded very similar results. Dr. Prudden has made some experiments which indicate that dead bacilli, freed as far as possible from the products of their growth, are capable of stimulating cell activity enormously, and of producing lesions morphologically similar to tubercle, but which are not indefinitely progressive, and do not induce an infectious disease. The legitimate conclusion from his observations is, that coagulation necrosis is dependant upon a metabolic product of the growth of the bacillus. Whatever beneficial effects were obtained from the original tuberculin were *in spite* of the production of coagulation necrosis. The lecturer agreed with Trudeau, Schede, and others, in the opinion that in some modification of tuberculin would be found a truly valuable remedial agent in tuberculosis.

The speaker then referred to several new methods of treatment. Professor Liebreich had hoped by the administration of the salts of cantharides, not only to cause an effusion of serum but a stimulation of cell activity, and consequently an increase in the germicidal action of the serum on the bacteria. Potassium and sodium cantharidates were administered hypodermically in doses of $\frac{1}{15}$ to $\frac{1}{10}$ of a grain, at intervals of forty-eight hours or more. The results, however, have been rather disappointing. Another method of treatment had been tried founded on the claim that in rabbits which had been inoculated with the tubercle bacillus, the evolution of tuberculosis can be arrested by a subsequent inoculation with the serum of dog's blood. As fibrinous induration is to be regarded as the natural curative process in tuberculous lesions, it has also been suggested that as chloride of zinc when injected in small quantities causes such an induration, injections of this substance at the site of the disease, would prove beneficial. Twenty-two patients were subjected to this treatment in France, and while the results showed that it is possibly useful in tuberculous disease of the joints and glands, the use of intra-pulmonary injections of a ten per cent solution are hardly practicable, and are of doubtful efficacy. Renewed interest in the use of creasote in tuberculosis has been awakened by the labors of Dr. Beverly Robinson, of New York, and at the present time, the literature of the subject, is quite voluminous, and is exceptionally favorable. It is generally admitted to exert a favorable influence on nutrition by reason of its action upon digestion, and it is also probable that its local antiseptic action is also beneficial. Some experiments which have been recently carried out for the lecturer by Dr. John S. Ely at the pathological laboratory of the College of Physicians and Surgeons, tend to confirm Guttman's experiments in test-tubes on the germicidal action of creasote on the tubercle bacilli; but still more recent investigations indicate that creasote immediately upon gaining entrance to the circulation, enters into chemical combinations in the blood, forming substances which are without specific germicidal power. Trudeau has conducted some experiments which show that even in heroic doses, creasote is incapable of preventing the development of experimental tuberculosis or

of arresting its progress. As guaiacol constitutes from sixty to ninety per cent. of beech-wood creasote, it may be considered as the active principle of this drug, and a more suitable preparation for internal administration. The carbonate of guaiacol, however, being a simple, definite, crystalline substance, which can be obtained chemically pure, is still more eligible. It is tasteless and odorless, does not cause digestive disturbance, and is decomposed in the intestine into guaiacol and carbonic acid. The speaker said that he had made some use of this drug in his cases at St. Luke's Hospital. It had a favorable effect on the night sweats, but not on the hectic, and in one case, complicated by chronic diffuse nephritis, there was a marked increase in the albuminuria, until the drug was withheld. It was administered in doses of from four to six grammes daily without discomfort. Seven cases in the hospital of well marked tuberculosis were treated with the modified tuberculin, three for three months, and the others, for about two months. There was no appreciable change in two of them; in a third, there was a remarkable improvement in the physical signs; of the four remaining cases, there was no improvement in one, marked improvement in one, less marked improvement in another, and in one, at least temporary arrest of the disease. The speaker thought that tuberculin exerted its effect chiefly on the specific lesion, while creasote more particularly affects the nutrition. Modification "B" seemed to be the preferable one, as the patients can be continuously about the wards or out of doors. The bacilli were found to be constantly present in the sputum in undiminished numbers. Both creasote and guaiacol may be safely given in large doses and by subcutaneous injection, but they are equally efficacious when given in much smaller doses, and by the mouth. Whatever method be adopted, these drugs must be administered for a long time to secure any marked benefit.

FOR COCCYDYNIA.

The following suppository, employed at bedtime, will afford relief from the pain of coccydynia and permit sleep:

R. Ext. belladonnae.....	gr. 14.
Ext. hyocyami.....	gr. 8.
Iodoform.....	gr. 24.
Ol. theobroma.....	gr. 12.—M.

—WHITLA.

Communications.

MOLLUSCUM FIBROSUM.*

By E. A. COBLEIGH, M. D.

CHATTANOOGA, TENN.

My subject is one of much clinical rarity. No one man can have very large observation or experience with this affection. Hardaway, of St. Louis, has seen but 3 cases of it in his special practice covering 6,724 dermal cases of all kinds. Anderson, of England, has seen but one out of a total of 24,891 in hospital practice. Duhring is authority for the statement that the annals of the American Dermatological Association gave but 9 cases in their total of 16,863, and Morrow, mentioning the same statistics when they had swelled to a total of 112,863, gives only 86 cases of molluscum of all kinds.

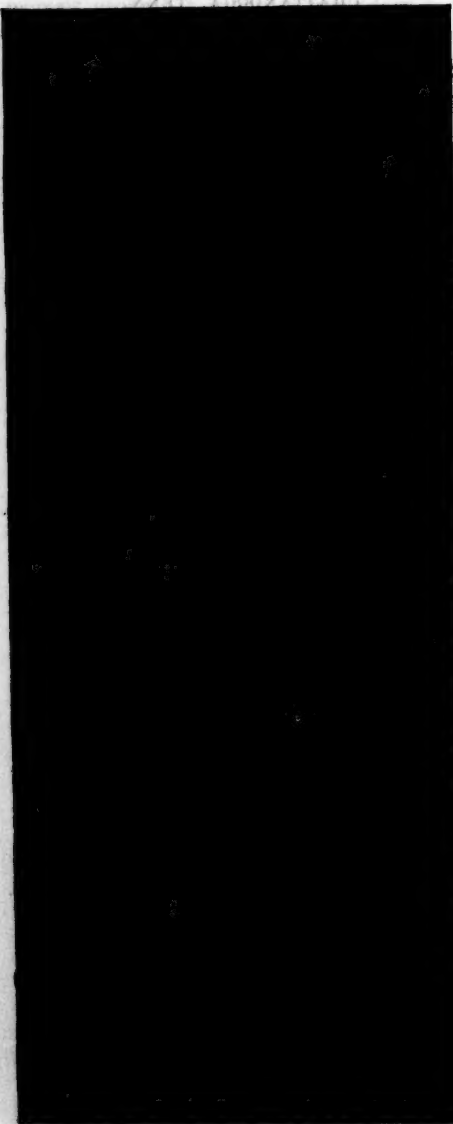
So it may seem a little out of the usual line to bring such a subject here but possibly it may, by reason of its departure from the routine, likewise prove refreshing; and certainly to me it has had an interest from the fact of one of these very cases falling under my rather recent observation, it being the second I have seen in a practice of about a score of years. Furthermore the patient resides within the bounds of your immediate territory, lending further interest, and I intend herewith presenting photographs of him before you, taken at the date he was seen by me, to illustrate my paper.

The affection has been variously designated at different periods since its first recognition as a separate disease and by different writers. Its several names are Molluscum Fibrosum, Fibroma Molluscum, Molluscum Pendulum, Molluscum Simple, Arelo-Fibrosum, Molluscum Albuminosum, and by Fox referring to its single lesions, Polypus of the skin. The name I have here used comes from *Mollis*, "soft, resembling mollusks," and *Fibra*, "fibre."

Generally speaking, the term is applied to a generalized dermal fibromata. Van Harlingen divides it further into multiple or small-tumor form and the single or sparse variety. And other authors state that these patients—referring to the generalized kind—are liable to coincident der-

* Read before the Tennessee State Medical Society, at Knoxville, April 12, 1892.

matolysis, pachydermatocele or cutis pendulum as they variously designate the accompanying manifestations. Fox likewise refers to a fungating form with rapid development and evolution which differs from any described by other writers and



seems to border rather on dermal sarcoma than true molluscum as the term is limited of late years.

Bateman was the first observer to accurately describe this affection. It is most common in the East and the Orient—also

to dark skinned races as the negro, therein resembling keloid; but it is by no means absolutely confined to them. Some authorities aver that females are the most frequently affected, while others declare that the sexes are about equally liable.

The disease consists, in its generalized form, of pea to egg-sized superficial and integumentary neoplastic nodules, more or less firm in consistency, well circumscribed, occurring singly or but few in number, these are mostly found on nose or cheeks, and regarded by their possessors as moles or warts. Occasionally met with on the hairy scalp, they are there designated *nævi pilosus*. Soft, filamentous warts of old people are a species of new growths bordering at least on molluscum, into which it is not unusual for them to actually develop as growths manifesting all the true characteristics of those tumors, and indistinguishable from such as are common to that affection. Berry-like *nævi materni* are also regarded by some competent observers as closely allied to molluscum. All move with the derma and are confined to it.

In the multiple form, as already stated, the tumors show varying dimensions and forms, from a small pea up to an egg or even larger. Later I shall speak briefly of a larger variety. These nodules are roundish, button- or plaque-shaped, embedded or seemingly subcutaneous, pyriform or polypoid when pendulous, generally pedunculated but sometimes sessile. In consistence they are either firm, fibrous and tense; or gelatinous, flaccid and flabby; most commonly the former at first and later becoming soft by absorption of the contents of their alveoli. The larger ones are frequently glistening and show a tense surface as if oedematous. Their overlying integumentary layer is mostly of normal hue but may be pinkish or purplish. Hairs and comedones sometimes occupy the surface particularly of the larger ones. Their general consistency is like a mammary gland, but firm pressure always yields a harder, vaguely defined central core over which the walls roll under the finger and give the peculiar condition variously denominated "empty purse," "scrotum without testicles," "seedless raisins," "loose bag." Virchow alleges that the small growths are sometimes protuded from the superficies of the larger.

In special situations we find the fa-

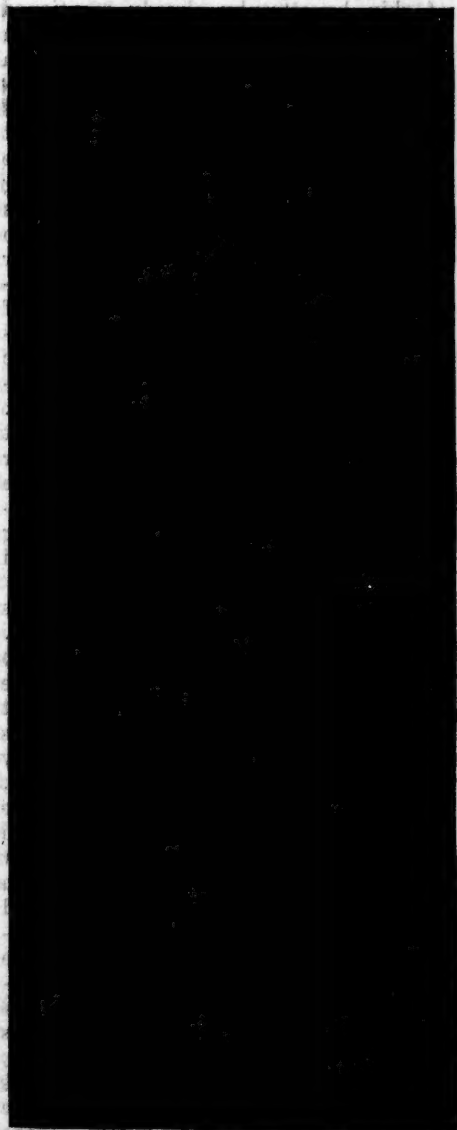
favorite sites of predilection of the circumscribed molluscum at the last cervical vertebra, on the chest under the breasts, on the temples, the upper eyelid, behind the ears, on the hips and the labia majora, and when found in these situations it is rare for more than two or three tumors to exist. In the generalized form—which is the most classical and the one specially dealt with in this paper—the neoplasms present in numbers from a few to thousands and up to large size, for among the majority of minute ones a few quite extensive of area are usually found. These show a preference for the trunkal surface where they are occasionally more or less confluent, but the face does not often wholly escape nor the extremities. And they have been found in rare cases on the palms and soles as well as in the internal organs of the body.

Regarding subjective symptoms the affection is utterly devoid of inconvenience other than from the size, appearance, numbers or location of the nodules. They show not the least contractile tendency such as marks the kindred neoplasm keloid. They are indolent generally and of remarkable tardy growth. Dr. Hasnimoto, of Japan, exhibited before the Medical Society of Tokio a case of forty-two years standing wherein the patient carried on his person a counted total of 4,503 tumors of various sizes. Rarely the growths degenerate into carcinomatous conditions or sarcoma or epithelioma. Marasmus and tuberculosis are sometimes coincident states, and Hebra observed that persons affected with molluscum were uniformly stunted in their physical and mental growth though not imbeciles. Hebra's observation has been confirmed by most later dermatologists though the general health of these unfortunates is not commonly impaired to any marked degree.

Authorities mention true fibromata, myo-fibromata, naevi keloid and dermatolysis as kindred formations if not simply differing varieties of similar pathological processes, and I confess that it seems to me as if all properly belong in the molluscous group as overgrowths of connective tissue of the dermal structures. And I do not know but Elephantiasis Arabum should share the same classification, just as eczema in its diverse forms was formerly confused by undue refinement of classification.

The commoner variety of molluscum

consisting of one or few growths deserves passing mention—I refer to the form showing very large tumors, not the small nodules with facial predilection. This variety is generally called fibroma pendulum, pachydermata, dermal hypertrophy, etc.



These neoplasms attain sometimes enormous proportions as shown by the weights of some removed by various surgeons, notably one of 32 1/2 pounds taken off by Heyland. Most molluscum growths show a tendency after attaining certain indefinite

size to cease growing further, merely remaining thereafter as cumbersome bodies without growth. This is likewise true of the vast majority even of the smaller tumors of the generalized variety. And as bearing on the probable unity of the forms of skin hypertrophy already mentioned Anderson figures, in his excellent work on dermatology, a striking case of a collier in the old country who manifested, simultaneously in his person, all of the allied forms even to a leg like elephantiasis, the left being 7 inches larger in the circumference than its fellow, and the affection having been in progress from childhood. It seems as if persons with a dermal tendency to fibrous neoplasms may manifest it either by an extensive and almost universally existent energy of production in the way of multiple tumors or conversely by an absorption of the dormant powers of systemic overgrowth in one locality by the evolution of one or two enormous dermatolysis. And in these latter cases, as pointed out specially by Wilson, vascular increase or enlargement goes hand in hand with the fibrous hypertrophy giving venous dilatation to prodigious extent and rendering operative procedures for their removal particularly bloody.

The etiology and pathology of this disease can be considered best jointly. With regard to the former, little seems to be known. It is generally thought to be either an hereditary affection or at least one of congenital beginning. Certain it is that all authors are agreed that it usually commences to manifest itself in childhood, though this is not an invariable rule if the histories of these patients can be given credence as my own case shows. Virchow cites a case where a man suffering from molluscum had a grandfather, a father and brothers and sisters all of whom were likewise affected. It is said never to have been seen among the high classes by clinicians or private practitioners so far as recorded evidence goes. The true cause is unknown.

There is a difference among pathologists as to whether the beginning of the neoplasms is in the connective tissue of the corium, in the connective tissue framework of the fatty subcutaneous structures, or the connective tissue of the walls of the hair follicles. Von Recklinghausen regards it as a fibroneuroma developed from connective tissue surrounding the

fasciculi of the nerve fibres (the endoneurium), and the neurilemma is only secondarily implicated. Hardaway confirmed this by one necropsy, and others allege that this condition is always found post-mortem. The nerve fibres themselves are unaffected save by pressure and are never degenerated. Smaller tumors of the skin sometimes allow nerve fibres running through them while the larger ones do not, and it is reasoned that this is because in the ones of older growth absorption has caused disappearance and connective tissue (fibrous) then predominates minutely, the stroma of these neoplasms shows intimately interlacing fibres holding in their interstices a whitish or yellowish semi-fluid material which can be squeezed out by firm pressure, and it is the final absorption of this material which gives the soft consistence and empty-purse feel to the individual tumors.

Dr. Taylor, of New York, directs attention to an occasional manifestation of molluscum following injuries, which has likewise been noticed by other writers, and which he explains on the hypothesis of nerve injury thus corroborating and emphasizing Atkinson and Von Recklinghausen in their neurotic theory of the origin of all molluscous growths.

As to the tendency of these tumors, it is worthy of note that spontaneous involution has happened in rare cases but so infrequently as to be more a matter of curiosity than of clinical moment. Generally the prognosis involves a gradual increase in size up to the uncertain limit already referred to, and numerically they multiply slowly from time to time. This increase is particularly liable to be hastened about the periods of puberty, pregnancy and the attainment of adult age.

Diagnostically the affection is one easy of discrimination even by the novice. Its multiple tumors of indolent character and without special subjective annoyance, of long persistence as a general thing when first presented before the physician, often dating back to very early life, its peculiar flabby empty bag feel, and the pedunculated aspect of some or all of the numerous tumors mark it distinct from all other skin affections. From Molluscum Epithiale, it is known by the absence of a characteristic central depression inseparable from that disease, or if there be a central comedo it is readily expressed, such neoplasms are in

or on the skin which is tightly stretched over them, not subcutaneous as is fibroma. Then, too, in fibroma the integument seldom presents any abnormal hue. Multiple sarcoma is sudden in its onset, generally in adult life, and often pigmented. Lipomata are flatter, almost never pedunculated, and lobulated distinctly, as well as numerically not multiple. In sebaceous cysts the contents are easily squeezed out leaving them entirely empty. Multiple true neuromata are exquisitely painful and hyperæsthetic.

The treatment is simple to consider. It is practically wholly operative, notwithstanding that Fox advises, and avers his own success with acid nitrate of mercury to the small tumors and this combined with the use of the ligature to larger growths. But the knife or galvanic therapy is really all we have to aid us of reliable measures. Electrolysis sometimes succeeds, perseveringly resorted to, and is specially applicable to the facial region where cicatrices are undesirable, the cathode being used to the growths. In larger tumors galvano-causty is desirable when applicable at all by reason of their excessive vascularity and resultant hæmorrhage under the knife. Other plans of treatment have proved utterly useless and mean only a waste of time with ultimate disappointment.

Now, briefly, the salient points regarding the case. It is not such a startling one as to its array of great numbers of neoplasms as many others which have been pictured by various writers of text-books on skin affections, but it is a well marked one even in this particular and the photographs will speak for themselves. The patient, J. B., hails from Bledsoe County this state. He is 5 feet 2 inches high, stunted in stature, as most of these patients are. Weighs 115 pounds. Age 33 years. Spare of build and dirty in appearance. Skin abnormally oily with tendency to seborrhœa oleosa. Flesh firm and natural, palms of hands show that he labors hard and continuously. Certainly is not an invalid as to general health if present physical appearance count for anything. Mentally he seemed to be a fair average of his class, though not by any means bright. The photograph was taken at my request July 8th of last year, with the patient wholly stripped except a towel to humor natural modesty.

The history given by this party must be taken with a grain of allowance, because of the fact that he is earnestly desirous of securing a pension from the Government on account of his affection and therefore the date of appearance of this eruption is given as 28 years ago—at the age of 25, you see—and while he was a prisoner in Andersonville. He attributes it to a precedent attack of scurvy, and alleges that the tumors appeared in large numbers all at once, which is hardly credible in the light of common history of these attacks. He is likewise emphatic in his averment that it produces great, even excessive, discomfort by pruritus, which is not the rule in such cases. The tumors are not very large, but numerous, though not nearly so much so as many of the figured plates exhibit in the works already mentioned. The reliability of his statements you can form your own conclusions upon when you allow for his relation to the prosecution of a pension claim based on disabilities caused by army service. Further than his picture and history, I can give you no light touching the case as it has had no treatment from me, nor is it now under my observation. But applying to it the general rules governing these manifestations we should conclude as a probability that this dermal trouble began in early life—likely in childhood—and will continue with possible slow increase as long as he lives, without great inconvenience except as regards its cosmetic effect which to him I presume is not a factor that would count very far. He denied its existence, of course, in any other member of his family of the present or past generations, and I had no way to verify his assertions.

HEMIHYPERTROPHY.

Mobius (*Münchener med. Wochenschrift*, 189, No. 44,) reports the case of a boy fourteen years of age, whose parents were neurotic. The skull was symmetrical; the left cheek larger than the right. The left extremity in all parts was stouter and firmer than the right. Sensibility and reflexes were normal and equal on both sides. The hypertrophy was looked upon as a pathological change. It is worthy of note that the vaso-motor disturbances of the skin were the greatest over those parts which were not hypertrophied.

TWO CASES OF DISLOCATION OF THE END-BONE OF THE THUMB.

By J. S. WIGHT, M. D.,

PROF. OF OPERATIVE AND CLINICAL SURGERY AT THE LONG ISLAND COLLEGE HOSPITAL, BROOKLYN, N. Y.

Dislocation of the end-bone of the thumb is of much interest and importance to the surgeon for the following reasons: The injury is rare; it is not easy to treat; a disabled thumb is more or less serious; and perhaps we do not know all about this injury, since systematic writers have not considered it fully. Two cases of dislocation of the end-bone of the thumb have recently come under my care: it seems to me that they deserve reporting.

Case 1.—Inward dislocation of the end-bone of the left thumb.—M. B., a laborer, age 50 years, Jan. 26th, 1892, was standing near a ten-foot high pile of bags containing rice, when one of the bags fell upon him and knocked him down, injuring his left hand and cutting and bruising his face. He was brought to the College Hospital soon after the accident, where I examined him. He said he struck the end of his left thumb upon the floor planking of the dock. The thumb presented the following appearance: The end-bone was adducted and bent inward; the base of the bone was prominent on the inner aspect of the thumb; it was carried slightly backward, but not enough to make it a backward dislocation; the head of the middle thumb bone was projecting under the integument of the outer aspect of the thumb; the end of the thumb was inverted toward the index finger; there was marked immobility at the seat of the last joint of the injured thumb. There was an inward dislocation of the end-bone of the thumb, and the patient complained of severe pain when I made an attempt at reduction. The tendons of the flexors and the extensors were carried away from the head of the middle bone, and the base of the end-bone had torn the capsule and escaped from it; the outer aspect of its base was resting against the inner side of the middle bone. I did not think it expedient to attempt reduction without anaesthesia for two reasons: under anaesthesia I would be more apt to succeed; and in case

of failure, my patient would be ready for an operation.

Reduction.—After anaesthesia I seized the end of the thumb, my index finger grasping the dorsum of its base and my thumb pressing upon the palmar aspect of the dislocated bone; I bent the end bone over backward so as to meet the next bone at a right angle, and at the same time pushed the base of it toward its normal position; the projection on the side of the base of the bone, by means of rotating it, engaged in the rent of the capsule; and then by pressing firmly and carrying the bone outward the reduction was brought about with a "click," and as this movement was completed the thumb was straightened out. The forearm, hand and thumb were placed upon a wire-cloth splint made in the form of a trough. The case did well and good motion of the end-joint of the thumb was recovered.

Case 2.—April 5th, 1892, Mrs. B. was sent to me by my colleague, Prof. Skene. She said that she fell down stairs three weeks before with a baby in her arms, and injured her right thumb. The end of it was projecting directly backward, and the doctor who saw it pulled it out straight, and told her to poultice it. When I saw her the thumb was still very painful, and showed the characteristic deformity of a backward dislocation of the end-bone.

Reduction.—I was assisted by Dr. Welty, the family physician and Drs. Cochran and Wm. Skene. The patient was put under the influence of ether. Then I pushed the end-bone of the thumb upward and backward to a right angle with the next bone; next I hooked my index finger around the base of the dislocated bone; while I pressed against the palmar aspect of the thumb of my patient. I pulled with my index finger as forcibly as possible; in a few moments the base of the dislocated bone slipped over the head of the next bone; at last I flexed the end-bone of the thumb, making pressure over the dorsum of its base, and at the same time making pressure backward upon the head of the middle bone. The two bones had to be held in place until the splint was applied. During reduction crepitus was felt, showing that the edge of the articular cavity of the end-bone had been slightly fractured. The splint was made of wire-cloth, and embraced the thumb, the wrist, and part of the forearm. There was a

constant tendency for the end-bone to get out of place again, which was not easily controlled even by the splint. Firm extra pads were applied: one over the dorsum of the base of the end-bone, and the other on the palmar aspect of the head of the middle bone. Every three or four days I made passive motion of the end-joint of the injured thumb. While the bone appears to remain in place well enough, there is a tendency to ankylosis. Nor do I believe that the patient will ever regain the entire use of her thumb, yet it will be a good opponent of the fingers, and be very useful.

POST-DIPHTHERITIC PARALYSIS.

By FRED W. D. EVELYN, M. B., O. M.
CLINICIAN MEDICAL DEPT. UNIV. CAL. AND
CLINICIAN DISEASES OF CHILDREN
SAN FRANCISCO POLYCLINIC.

The subject of post-diphtheritic paralysis is one that must ever prove attractive, containing, as it does, factors not merely of diagnostic and immediate prognostic value, but conditions which can not be ignored in the deduction of final or ultimate prognosis. And I question if we are justified clinically; whatever we may be pathologically, in considering diphtheria, or any of its so-called classical concomitants, as distinct, isolated, well-defined morbid processes, constant in their manifestations or lending themselves to a uniformity of intensity in their effects directly proportioned to the extent or the locality of the areas primarily involved.

Paralysis, it is true, does not, as a general rule, make its appearance until the disease, or, perhaps, more correctly, the more evident indications of its presence, are on the wane, or passed away altogether; but this fact, to me, does not seem sufficient to warrant the conclusion arrived at by some, that post-diphtheric paralysis is simply an integral and essential stage of the disease. To do so would be equivalent to saying that those cases (leaving out those severe examples which are too rapidly fatal) not exhibiting paralytic phenomena had been aborted, and did not pass into the third, or final stage. I prefer, rather, to consider paralysis as a side issue, a resultant, and not a definite phase of the primary disease. Even in those cases where

there has been an absence of marked symptoms, where, for example, a supposed simple catarrhal pharyngitis, or nasal voice, are followed by the familiar symptoms of paralysis, I conceive an antecedent diphtheria, so modified in its manifestations that its true character was not surmised until a super-induced condition, viz., paralysis, furnished an interpretation of the true character of the disease.

The paralysis, in the early stage, at least, has some features which assist in its differentiation, not merely its relation to an attack of diphtheria; but the character of mutability, shifting from one area of involvement to another, this peculiarity being altogether independent of any alteration in the other evidences of the presence of diphtheria; in other words, its manifestations are discrete rather than progressive.

It is also to be noted that when it simulates more profound organic lesions its phenomena in their order of appearance are exactly reversed; e.g. bulbar crises in organic lesions appear late in the attack, in diphtheria early, and, furthermore, exhibit a tendency to sudden onset and marked intermissions.

I have noted also that, with the exception of palatine paralysis, motor involvement is in excess of sensory, in palatine both are equally intense. In recovery, however, sensation, in most cases, takes the precedence of motor improvement;—and, again, I have noted that voluntary contractions are directly proportioned to those artificial contractions produced by electrical stimuli, a point of interest, differing in its relation from the phenomena observed in the recovery of those forms of paralysis which have demonstrated the qualitative changes known as the "reaction of degeneration," where the power of producing voluntary contractions is regained before contraction can be elicited by either the interrupted or continuous current.

The order of the appearance of paralytic symptoms is not always constant. In a few cases observed the loss of the tendon reflex, which is generally considered the earliest symptom, was preceded by a nasal voice with well-marked palatal involvement; once recognized its duration is more persistent than other symptoms, except in those cases where permanent paralysis is established, when the knee reflex may be ultimately returned to normal action.

Again, in many cases, we have to recognize a condition of general, or, more correctly, a multiple paralysis. One of my cases exhibited this in a marked degree; a double strabismus; lower extremities useless; muscles of trunk and neck so involved that the body was limp and the head moved after the manner of a universal joint; organic reflexes, with the exception of deglutition, which was difficult, were unaffected; hearing normal, and actual vision only modified by the presence of the strabismus; but there was a complete absence of any trophic changes. This latter point is worthy of emphasis as I consider it an evidence of the early stage of paralysis, *i. e.* a stage prior to any actual quantitative changes, and, therefore, of important prognostic value, as, in their absence, a very favorable prognosis may be given. This naturally leads up to the consideration of the morbid changes manifested, which consideration lends itself to a natural division, or, perhaps, I should say that, clinically reviewed, we should recognize two distinct stages, and two separate tissues, (nerve and muscle), involved.

The recognized fact that in many cases the sudden disappearance of the paralysis in one group of muscles, to re-appear in another, would scarcely admit of the conclusion that an actual alteration, a pathological condition, had been induced, either centrally or peripherally, but simply a functional perversion without any molecular or structural deviation. We have, in short, a transient cause producing a transient effect. Let, however, mere functional perversion become persistent, then irritation will become inflammation, and precipitate pathological conditions which in turn can *per se* inaugurate changes not essentially dependent upon the the primary cause. This sequence of events is readily admitted in other forms of paralysis; *e. g.* a progressive muscular atrophy continuing to extend long after the exciting cause has ceased to exist, and I think progressive post-diphtheritic paralysis warrants a like deduction, whether the cause acts from a central or a peripheral origin.

The origin of the paralysis as *centric* has been advanced, but that is not easily maintained when we note that the ramifications of a nerve trunk are not equally involved, some fibres, indeed, maintaining a perfect normal function; again, it is

difficult to conceive a lesion so selective in its action that nerve centres closely adjacent are not, in a measure, at least, correspondingly affected.

As to the peripheral degenerative changes stated to be observed, in certain cases, whilst admitting their existence I am in favor of considering them secondary—super-induced conditions called into existence but not further dependent upon the primary excitant for their subsequent progression—for observations made at this stage reveal, not a simple neuritis with a concomitant interstitial inflammation, but an actual necrotic degeneration, affecting the component parts of the nerve structure.

The second tissue to be considered is the muscle itself; its fibres are found to exhibit cloudy swellings and fatty degeneration, and, in some instances,—especially when the muscle is in contact with a super-imposed diphtheritic deposit—the appearance presented suggests a penetration of cellular elements, either leucocytes or modified blood corpuscles, forming foci capable—as it were—of producing necrobiotic changes in the tissues which they invade. This may possibly account for the slough-like character assumed by traumatized areas on which a pseudo-membrane has formed.

The more vital forms where the cardiac, or cardio-pulmonary system become implicated I have not had sufficient opportunity to investigate,—but I would favor the idea—in case of cardiac paralysis—that the action took place reflexly, through the plexus of innervation, and was not analogous to the asystolia as found in dilated heart or mural degeneration.

Reviewing these data I feel justified—to a degree, at least, in endorsing the theory that paralytic changes are primarily due to a morbid factor—a ptomaine—generated by the specific productant of diphtheria, and at first instituting a profound functional disturbance,—which disturbance ultimately reaches a stage of independent activity, establishing a clinical line of demarcation, if you permit the term, not demanding, prognostically or therapeutically, undue consideration of the original cause.

Reaching this stage the ultimate prognosis must be based upon the actual extent of the neurotic changes elicited by the usual methods of testing a nerve case, and treated as the symptoms demand. There-

peptic agents will not now require to be the so-called specifics for diphtheria, but must appeal to the condition actually present—asthenia or anæmia, as it may be.

During the stage of simple functional disturbance, or ptomaine activity, we are called upon to treat the diphtheritic poison as the active cause, and in measure as we prevent tissue irritation we reduce the tendency to secondary complications.

A clinical division such as this will, I presume, be beneficial, and in endeavoring to follow its suggestions we shall avoid much of the disappointment experienced in the indiscriminate treatment of diphtheritic sequelæ. I shall not now refer to treatment in detail, for such a clinical division as the above sufficiency suggests the treatment required.

MECHANICAL TREATMENT OF CHRONIC RHEUMATISM.*

L. P. WALBRIDGE, M. D.

DECATUR, ILL.

You have all had come to you from time to time for relief cases of chronic rheumatism. By rheumatism in its widest sense I mean shifting pains in the joints, the parts surrounding the joints and in the muscles. These poor sufferers come to us in various phases. In a few the nutrition and general health of the patient seem not to be materially altered, but in a great majority of cases there will be found altered nutrition with its resulting change in the blood, nervous system and muscular tissues. Rheumatism affecting the muscles in its various locations upon the body is amenable to treatment by remedies both local and constitutional. Those remedies that have an alterative process upon nutrition seem more potent for good. For instance, the salicylates changing the quality of the blood; iron a constituent of the blood to the red corpuscles of which it gives color; morphine and atropine increasing the heart's action and sending the blood with greater force thereby setting up molecular changes; strychnine, alcohol, arsenic, antipyrin, ammonia, guaiacum, iodide of potassium, sulphur, cod liver oil, counter-irritants, fric-

tion and food consisting of all these, setting up metabolic changes altering the blood, nervous system, and general nutrition of the parts. Sometimes a single drug of this list, or a combination of some of these, will act in some cases admirably, but in some cases this plan of treatment must be continued for some time until there is brought about an altered condition existing either in the blood, nervous system or muscular tissues, each case peculiarly adapted for a certain line of treatment. But undoubtedly we will have cases come to us that will seem to resist all medication, then we will have to devise some method by which we can cure our patients or they will slip out of our hands and go from physician to physician and at last become discouraged and give up all hope of ever becoming well. The class of cases that will resist all medical treatment is that affected with chronic rheumatic arthritis which presents the clinical features of pain, impairment of function in joints, muscles, contraction of tendons, swelling and adhesions. These cases are not benefited by any form of treatment other than that relative to the joint. Then what is the proper method of treatment and indications for treatment? They are to relieve pain, promote absorption, hasten the removal of adhesions and set up molecular changes in the surrounding parts. Only by mechanical means including calisthenics with its healthful exercise of body and limbs can we then hope to break up existing adhesions, to smooth the roughened articular cartilages, strengthen the contracted tendons and nerve tissues and restore the joint to its former suppleness. First, by a process of stroking and kneading in a centripetal direction, stimulating the lymphatics and venous currents and surrounding tissues to greater activity, carrying the lymph with greater rapidity toward the centre. By these means the lymphatics and circulating system are stimulated, setting up changes in the nutrition, causing healthy activity in the parts. In cases where there is perceptible defective nutrition constitutional remedies with dietetic medication must be employed. I will give you a few cases that came under my care. After exhausting all other methods of treatment, the patients becoming tired of treatment and threatening to go to some springs for relief, I began mechanical treatment by manipulation of

*Read before the District Medical Society of Central Illinois at Pana, April 20th, 1892.

parts, stroking, kneading with active and passive moments.

CASE I.—Mr. H. J., a day laborer, age 46, came to me in April of last year. Complained of severe pain in back and right thigh down to the knee. He was scarcely able to walk by use of cane, could not raise foot to stair steps without the help of both hands grasping and lifting it up. He said his right leg had troubled him for two years and had constant pain on posterior part of thigh. While seated he could not raise himself without the aid of his cane. While he was seated he could not raise his foot from the floor with leg extended more than one foot, it causing him severe pain in posterior part of thigh in knee and hip. There was great sensitiveness at the point of exit of sciatic nerve and at different points along its course and in popliteal space. Knee slightly flexed and steps on toes. Patient well nourished and otherwise in good health. After faithfully trying medicinal means without any benefit, I began mechanical treatment by kneading and stroking of parts, all kinds of movements being very painful to the patient. It being very difficult for patient to raise foot or thigh, I laid him on the table and began the simplest movements, as raising the affected member as high from table as possible, desist when the pain becomes severe, for in these cases flexion or extension are very painful in hip and knee joints. As the distance in raising the foot is increased so will the pain become lessened when the patient is up and about. Rest patient and try again increasing the height each time. By the maneuver the sciatic nerve and the muscles and tendons are put upon a stretch, for in most cases these tissues become shortened, their physiological action impaired, and by our endeavor to put these tissues on a stretch can we hope to bring back their normal physiological action. Alternate by stroking posterior part of thigh in a centripetal direction and kneading the muscles, having for its object the alterative changes that will follow in muscles and nerves improving the circulation and stimulating lymphatic resorption. Change movements by letting patient step over some object, say one or two feet high. It is a good plan to direct patient, for by partial disuse the cerebral powers causing the requisite contractions seem to be lost, so by directing patient

this lost power is gradually restored. Then direct patient to bend knee on floor raising himself up several times. All of these movements can be increased each day. I then instruct patient to walk properly stepping on heel instead. By this manner of walking all the parts are kept on the stretch. These various exercises should be gone through every day. The object is to keep the parts active and giving patient all the movements you can employ. This patient had been affected about two years. When under treatment eight weeks was discharged cured. More than a year has elapsed and he has had no return of rheumatism. The daily exercises lasted about twenty minutes, long enough to keep parts thoroughly exercised and not exhaust patient. In these cases the physician will become tired, and he will find that if he does his full duty it will be work for him as well as the patient.

CASE II. Mrs. H. K., aged 36, sent for me to go and see her at her home in June of last year. She came to the door on crutches. She said that she had been troubled with her feet and right knee for 18 months and had been compelled to use the crutches for the past ten months. On examination I found both ankles swollen, would pit some on pressure, movements entirely lost by her own effort, and any effort in making active or passive movements caused her so much pain that all such efforts were delayed for some days. Right knee joint affected with constant pain, synovial exudation quite abundant, could not put knee on extension the pain was so sickening. The general nutrition was impaired. The heart was in proper position, and I could distinguish no murmurs, but the first sound of the heart was weak. It seemed to beat no stronger than second sound. It was easily excited and she complained of being faint at times and thought her heart would stop beating. For her heart I put her on a mixture of iron, quinine, strychnine and magnesia sulphate with a vehicle of glycerine and water, to be shaken and taken three times a day in plenty of water. After taking this mixture for a few days she began to improve in strength, her heart increasing in force, but her ankles and knee remained unchanged. I began by using hot and cold water on parts, alternating until the sensitiveness of parts was diminished, then gradually beginning by stroking and

manipulating parts, followed by active and passive movements. This plan of treatment was continued for two weeks, increasing the movements each day at which time I took her crutches from her and told her not to use them any more, but to walk without them and try to walk properly. Her strength in ankles gradually returned and the swelling in ankles subsided. The active and passive movements were continued for six weeks, and at that time she was well enough to stop active and passive movements. The constitutional treatment was continued for two months.

CASE III. Mr. J. Mc K., a plasterer, age 46, sent for me in April of last year. I found patient confined in bed, could not turn over in bed without help. On examination I found some tenderness in loins on either side of spine in lumbar region, but no change of structure was apparent. I prescribed for him quinine and sodium salicylate, two grains of the former, and four of the latter, to be taken every two hours until the physiological action of the drugs was produced. This followed after they had been continued for ten hours, but no relief of the symptoms followed their use. I followed by using phenacetine in ten grain doses every three hours until the effect of the drug was produced. This in a measure reduced the pain, but the weakened condition of the heart that followed and general prostration compelled me to discontinue the drug, and resort to stimulants. I immediately administered a hypodermic of morphine and atropine, which was followed by improvement of all symptoms, but after the effects of the hypodermic had passed the pain returned with as great a force as at first.

Three days had now passed and my patient was no better. I then resorted to mechanical treatment, first by kneading muscles of back and stroking them. After I had proceeded in this manner for a few minutes my patient could turn over in bed, and said that he was feeling better. The next day I got patient out of bed and began active and passive movements by having him stoop down and raise up several times, then bend backwards several times. From this time patient kept on improving and remained up. It astonished me to see how fast this patient improved after active and passive movements, suffering with such a severe lumbago.

CASE IV. Mr. J. D. A., machinist,

aged 47, came to my office last October, walking unsteadily by use of cane, complained of pain in back and right hip and thigh. Said he could not lift foot so he could walk well. On examination I found tenderness over exit of sciatic nerve and in popliteal space, knee slightly flexed, stepped on toes. While seated, when I lifted his foot he cried out that he came "to be cured and not killed." I explained to him that he must make up his mind to bear a little pain and that he would get well. I laid him upon the table and began by lifting foot as high as possible, stroking and kneading hip and thigh, gradually increasing height. I then changed his movements by having him walk and step over some object increasing height. I instructed him to kick as high as he could several times a day with this leg and keep it active for it needed activity and not rest. I took his cane from him and instructed him not to use it any more. I increased all movements as I had in case one, and after three weeks' treatment patient was discharged cured.

CASE V. Mr. C. A., merchant, aged 66, came for treatment in March. He complained of pain in right shoulder, arm and fore arm at night so bad that patient could sleep only by the use of a hypnotic. Examination revealed tenderness at points on shoulder, on inner surface of arm along course of median and musculo-cutaneous nerves. The grip of hand was so perceptibly lessened in right hand that patient could not hold a glass of water. This condition had lasted nearly two years and was constantly growing worse. I began by stroking, kneading and manipulating muscles of shoulder, arm and forearm, then directed patient to extend arms over head, which was very difficult for him to do. He could not fully extend arm, it gave him so much pain. I directed him to strike up using all the force he could, first with one arm, then with the other arm, then directed him to strike out from body, then strike down, then throw arms backward as far as possible. By degrees these movements were increased in force and became more easy for patient. I then gave him weights to hold out, increasing the weight until patient could hold out as much with one arm as with the other. All of these movements were kept up every day for four weeks when patient could sleep without pain. This patient had re-

sorted to medicines for more than a year for the relief of this cervico-brachial neuralgia without any benefit. To give more cases will make this paper too long and tiresome. These cases being unusually severe ones will illustrate the method of treatment and its results, contradicting the old teaching that these cases need rest.

What physiological effects are produced? The primary effects are upon the joints, muscles and nerves. In the joints stiffness, adhesions and contracted tendons are broken up and got into a proper condition for absorption. The secondary effects are produced upon the circulation and lymphatic system. The muscles and nerves are surely elongated, heat must necessarily be evolved by the manipulations, changing the molecules of the muscles from an inactive to an active state, causing internal work, setting up molecular changes in all the surrounding tissues. The circulation and lymphatic system are stimulated. By stroking in a centripetal direction the lymph and venous currents are increased, altering the whole process of nutrition. The waste material is carried away by increased action of the lymph and circulation, and new nourishment is more readily carried to all parts, feeding them and enlivening the whole organism.

HYPNOTIC EFFECT OF WARM BANDAGES

Warm baths, as is well known, produce a calming effect, and tend to bring on sleep, and Alldorfer has attempted to apply such a method in patients where a sedative effect is desired and yet where a bath is inapplicable. His method consists in wrapping the lumbar region and belly with linen cloths soaked in warm water, and then covering them with oiled silk or rubber cloth, so as to prevent evaporation, while the whole is kept in place and loss of heat prevented by a flannel cloth. This procedure is of ready performance, and the author says that by this simple means he has obtained the most astonishing results in the treatment of insomnia. By dilating the large vessels of the intestinal tract, by the warmth applied, a condition of anemia of the brain is produced, favoring sleep. These large intestinal vessels have very properly been termed the waste-gates of the circulatory system.—*Jour. de Med. de Paris.*

Society Reports.

THE CLINICAL SOCIETY, OF LOUISVILLE.

Stated meeting, April 19th, 1892.

DR. P. GUNTERMANN, PRESIDENT, in the Chair.

BOILS AND THEIR TREATMENT.

DR. W. C. DUGAN: I shall not apologize for selecting the unpretentious subject of Boils and their Treatment for this evening's discussion, for, be it remembered that no field of minor surgery has been so ignored for the more attractive themes of major surgery. Text books and works on special surgery are given over largely to abdominal, cerebral and thoracic diseases, and give the subject of boils a mere passing notice, or else forget it entirely. While the journalist discusses at length appendicitis, cerebral localization, operation of microcephalus, pelvic and other forms of major surgery, and rarely finds a moment to review one of the most common of all surgical diseases, that of boils. Another reason for selecting the subject, is, that it is one of uniform interest, alike to the surgeon and general practitioner. Before discussing the treatment of boils, which is the real purpose of my paper, I shall first invite the Society to a brief review of the pathology of the disease. We hear patients say that they are the product of bad blood, to humor of the blood, to the season of the year, etc., and we are not slow to criticise them; but they are as nearly right as the teachings of some of our works on surgery, in which we find that they are caused by certain forms of kidney disease, diabetes, etc., etc. While they are met with oftener in patients with bright's disease, diabetes, etc. than in healthy subjects, we must not jump at the conclusion that these constitutional conditions are the cause. Not infrequently we have patients say that Doctor so and so told them that their successive crop of boils was due to high living, bad digestion, etc. Yet, you can look back over your experience and recall many cases of bright's disease, diabetes, indigestion, without developing these troublesome pets, about which we hear so much of their depuratory action, purifying the

blood, and their value of \$5.00 each, in the spring of the year.

The relation of the conditions above mentioned to boils is indeed rather intimate, but they are not the essential causes by any means; they are the accessory causes and act by simply lowering tissue resistance, and thereby make way for the real cause of the disease. If pus from these foci of inflammation be carefully examined, it is always found to contain certain forms of vegetable life, which belong to the family of pus-forming microbes. The numerous infections from patient to patient, or patient to surgeon, is so frequent, that the infectious character of the disease is hardly to be questioned. But that, to the minds of the hyper-skeptical, is not sufficient to prove the microbic origin of the disease. But since the disease can be produced by the inoculation with pure culture, there is hardly room to longer question the microbic origin of the disease. The same kind of pus-microbe causes all forms of suppuration in boils and carbuncles, which is in fact but a number of foci placed very close together. I am surprised to see in modern works on surgery, the old idea still adhered to regarding the cause of carbuncles. They are not caused by the anthrax bacillus which is found in the malignant pustule, but the staphylococcus and streptococcus. *Treatment:* The common way of treating boils is but little better than leaving them to nature unaided. We are apt to say to the patient, go home and put on a poultice, and come to see me in the course of a day or two. The patient obeys instructions, and how is it done: 1st. He does not know how to make a poultice. He feels that the poultice has some specific action, entirely unmindful of the fact that its virtue is in the heat and moisture. He applies a little half-cooked poultice and goes to bed. It is cold by the time it is on. The next morning it is taken off. If the patient could have done anything more conducive to the growth of the germs and the development of secondary crops of boils, I am unable to see it. The moisture of the poultice at or about the body heat is certainly the best condition for the growth of microbe life. Poultices as generally made and applied are absolutely harmful, and should be discarded.

I would not like to be understood as denying the relief of moist heat, which

has a two-fold action; 1st it lessens tension and thereby mitigates pain, and if the heat be 104 to 110 F. as should be, it arrests the development of microbes. There is but one form of poultice to be relied upon, in my judgment, and that is hot bi-chloride gauze wrung out of boiling water and applied in a thick pad over the parts and extending some distance from the inflamed centers, covered with oil silk, rubber tissue, waxed paper or oiled paper. It has all the advantages of the old flax-seed poultice, without the objections. The moist heat is sure to give the patient much relief, by lessening microbic action and causing tissue relaxation.

Another line of treatment is the painting of parts with pure carbolic acid, tincture of iodine, turpentine or some other powerful antiseptic. It is found that this will abort a certain per cent. of the cases if done in time. But, since it seems settled beyond all reasonable doubt, that it is a microbic disease, it appears, that anything but applying the remedy directly to the focus of the disease, either by free incision and the application of antiseptics, or the injection into the tissue of the same, are less trustworthy and should be discarded.

The habit of waiting for pus formation is a bad one. Nature has by this time mastered the situation, and will soon get rid of the pus without aid of the surgeon's knife. I make it a rule to treat these cases of acute phlegmon, as soon as they come under observation, and the following plan has proven eminently satisfactory: Parts washed thoroughly and four per cent. solution of cocaine injected, which if not done carefully will give unnecessary pain. The solution should be placed in the deeper layer of the skin. It will be found that the tissue can be laid freely open after the injection without pain. Then a probe wrapped with some absorbent cotton saturated with pure carbolic acid, is applied to every part of the wound, pushing the probe out into the tissue to be certain that no part of the boil cavity escapes. Then the wound is packed with cotton saturated with the pure acid and some gauze dressing applied. The relief is almost instantaneous. The operation can be done without local anæsthetic. The acid, after the first few seconds, acts as an anæsthetic.

I have not found it necessary in all cases

to incise the phlegmon but just inject the pure carbolic acid into the inflamed tissue. I am much pleased with the injection and shall give it the preference until convinced that it is less to be relied upon, than the incision; but, so far, have not had a failure.

DR. T. SATTERWHITE: I think the paper read is a very interesting and valuable one. I have not used a poultice for any purpose for many years, not even in pneumonia. I use fomentations with spongio-piline covered with oil silk, which I find to be much lighter, handier and cleaner than poultices. I have often opened boils in their incipiency, and have never found relief before the cellular structure has melted and suppuration taken place. It is something like whitlow—if you open before the structure is broken down, before pus has accumulated, no relief follows the opening. If the injection of carbolic acid is followed by cauterization with nitric acid, I think it is an exceedingly interesting and valuable suggestion. Its simplicity makes it that much more interesting to me, because we have very few suggestions on the treatment of these simple, yet common troubles.

DR. J. M. KREIM: I want to ask Dr. Dugan if he thinks it advisable to use the injection in all cases of boils, irrespective of their indurated condition.

DR. W. C. DUGAN: Yes, sir, sometimes it is necessary to make several injections.

DR. J. W. IRWIN: The treatment of boils for the most part, spoken of by Dr. Dugan, is original with himself, although the antiseptic treatment of boils has been broached for several years; but how to perform the antiseptics seems to have been a great problem in the treatment of boils. I think, however, that in so far as the pathology of the disease is concerned, that he lays too great weight on the microbe,—that cannot be the pathology of the disease, it would be an exciting cause, which gives rise to an altered condition of the tissue involved. I think that is probably what the doctor intended rather than to say "The microbe was the pathology of the disease." So far as the pathology is concerned, we all know that it is nothing more than the result of ordinary inflammation, having, according to later ideas, a microbe for its origin or cause. When boils first make their appearance, it is not common to have more than one, two or

three at a time, but, if we produce undue pressure on these boils, or if we prick them we are very much more likely to have a crop of boils in the neighborhood of where the first one made its appearance, than if we had soothed them by proper applications. My experience with boils has been quite considerable, have recently had a case of a gentleman who had one hundred and three boils consecutively on his body. The man had had severe nervous prostration for some time preceding the outbreak of these boils, and that condition of the system is one favorable to the production of that class of disease. This was not the only case nor the first one, where I thought I could trace the cause of the boils to a disturbance of the nerve centers. Whether due to wasting diseases, such as consumption, dysentery, typhoid fever, gastro-intestinal disorders, to diseases of the kidney, including diabetes, and Bright's disease, diseases of the liver, or of the other internal organs, I have found boils, generally speaking, most frequently to occur in cases where the nervous system was involved in some form of disorder, especially some form that had greatly impoverished that system. I have also found that boils occur quite frequently in persons suffering from disease of the bladder, enlargements of the prostate gland, and so on. Therefore, I have come to the conclusion that the true causes which underlie that class of disease are, as before stated, due to disturbances which lower vitality and weaken the nervous centers of the individual. So far as the microbic origin of the disease is concerned—I have seen mention of it a number of times; whether it is true, or not, I am not prepared to say—I assume that it must be true. One thing is very certain that the microbe has a better soil to do work where we have this kind of nervous disturbance.

As to the management of boils in incipient stages—I have never applied anything to the surface of a boil that arrested its progress, and, so far as I remember have never made use of anything in the form of a poultice that cut short the progress of a boil. I have had hot water applied, which is the domestic remedy, as hot as the patient could bear it, temperature of 212° and probably higher than the boiling point without the effect of arresting the progress of the boil; I have applied iodine locally, carbolic acid locally, and I have applied,

as Dr. Dugan states, antiseptics, after making an incision. I have applied carbolic acid in the wound, and have never been able to arrest boils, or furuncles, with any of the applications named. I have never found any single remedy as beneficial in the treatment of boils as arsenite of iron. In those cases where boils have occurred most frequently, I have found that unless some constitutional remedies were given, such as arsenite of iron, that my patient would have a great many boils before he got well. I have not found poultices to do very much good, except for their soothing effect. I have found, however, that as soon as my patient could be placed under the effect of arsenite of iron, the number of boils would very materially diminish. I have never tried injections as mentioned by Dr. Dugan, but see no reason why they should not be useful;—I fear for the most part, however, their use would be impracticable because very few people would be willing to have a needle introduced into the tender parts. I think we should have some regard for our patients' feelings. Whether boils are caused by, or the result of, some impurities of the blood, seems to be a question that is hard to solve. But, we do know that it is an uncommon thing for boils to occur in a perfectly healthy subject. It has long been believed that boils were a source of drainage to the system, but in my opinion they leave the blood in much worse condition than it was at first. I think a man is rendered more susceptible to other forms of disease, owing to the waste they cause.

I do believe that what underlies the majority of boils is some morbid condition of the nerve centers.

DR. W. CHEATHAM: I see no reason why boils should not be relieved by incision, the same as periostitis, and our experience with periostitis is, that it is often permanently relieved by incision, and in many cases without the formation of pus. In considering the subject of boils, lately the question of sty has come up, and examination has shown that not only the acute, but the chronic sty to be microbic or parasitic in origin. Carbolic acid is used very largely about the eye; in a great many cases we abort abscesses of the cornea, or are supposed to, and relieve existing abscesses, by the application of pure carbolic acid. We scrape out the ulcers of the cornea, thoroughly cleansing them, and

apply carbolic acid well to the base with good effect.

DR. P. GUNTERMANN: Speaking of whitlow not being relieved until pus has formed,—the reason for that is, the periostitis is perhaps only confined to such an infinitesimally small place, that in making an incision you do not strike the whitlow, and, consequently, it is not relieved. Concerning the use of poultices,—I suppose a great many have discarded them by this time, that is, flaxseed poultices, using other preparations in the form of fomentations in preference to flaxseed; slippery elm, &c. The fact that one boil is followed by a crop of boils in the same neighborhood, would rather point to septic origin of the first boil, or, if not the real origin of the first boil, at any rate that there are microbes at work, and spread very rapidly, otherwise you would not have so many boils near the first one, you would have them on other parts of the body. The treatment spoken of by Dr. Dugan is nothing new, as the same line of treatment has been followed for at least twenty-five or thirty years.

DR. T. STATTERWHITE: Where boils are isolated, or just confined to one locality, is it not very often due to diseased follicles? Now, in patients who are suffering from an aggravated form of acne, we often find good sized boils. I have always understood that these were due to a closure of the mouth of the glands, from disordered and pent up secretion of them, so causing enlargement and suppuration.

DR. W. C. DUGAN: In regard to the pathology of boils, which is but the pathology of infection—there is no form of infectious disease known to-day, but what is microbic. We used to speak of the pathology of inflammation being caused by trauma, bruises, etc.; etc.; they simply open up the unions through which the various microbes enter the system. I think it is now accepted by all modern pathologists, that the essential cause of every form of inflammation, so far as is known, is microbic. It is quite true that dysentery, diseases of the liver and kidney, and so on, lower the physiological resistance and so produce favorable conditions for disease. We have two great forces continually acting; one is to build up, the other to tear down. If the building up process is weakened by certain constitutional disease, as a matter of course, it invites disease. The

resistance that we all have against disease is overcome by certain microbes. The healthy cells of our bodies have what is known as phagocytic action, which means that they have an affinity for germs and destroy them. Now, if this action by disease is weakened, abscesses, boils, etc., take possession.

In regard to crushing boils—that is a point which I intended to mention. If we take a boil between our fingers and crush it, (a method practiced by some to get the core out,) it is quite true that we aggravate matters very decidedly: The reason is this, we tear the membrane which nature has thrown out to prevent the microbe invading the surrounding tissues. When this membrane is ruptured, it allows the microbe to invade the tissues surrounding it. Any patient that has had a nervous disease, who loses to a certain degree his personal hygiene, who neglects bathing, who neglects the changing of his linen, lays himself liable to this disease. Constitutionally, the treatment of all boils is good in so far as it increases our resistance against disease, no further. Probably the most important treatment is the prophylactic treatment. Whenever patients have one-hundred boils, fifty boils, or, boil after boil, I take it that we could prevent this in quite a per cent. of the cases, provided we have a patient that we can control. We should instruct this patient to take a bath often, using the very best soap, cleansing the skin thoroughly, then taking a bichloride of mercury bath. In addition to this his linen should be changed often. If he has a boil on the back of his neck, his coat should be discarded for another.

DR. J. W. IRWIN: According to the latest ideas of the subject, Dr. Dugan has stated exactly what is now the order of the day. I endorse his remarks so far as that goes, but, from personal experience, I am not able to quite agree with all he says.

DR. W. C. DUGAN: I would like to report one or two cases: Some time ago a young man, a dentist, in extracting teeth, came across one that was septic, and some of the pus lodged in his moustache. He called at my office a day or two afterward, with his lip very badly swollen. I suggested to him that I shave off his moustache, and open the lip thoroughly. He said he would willingly undergo any torture to save the moustache, so I decided to inject some carbolic acid. I did not

use any cocaine, and injected about twenty minims of pure carbolic acid into the swelling. He left the office, came back in about an hour and said he had been suffering quite a little pain, but was perfectly easy then. I told him if he suffered any more pain that afternoon, to call back and I would make a free incision. The next morning I was very much pleased to find that the swelling had subsided more than one-half, and in forty-eight hours it had disappeared entirely. There was no further pain and no suppuration. I want to say that the injection treatment is not new to me.

Another young man came to my office a few days ago, having a boil on the back of his neck. Said he was a clerk at the L. & N. R. R. Offices, and had been laid up for several days on account of the boil. I laid it open thoroughly after using cocaine, then applied carbolic acid, as described, taking great care to see that it was passed to every part of the boil. The next morning he went back to his work. The operation gave him no pain, and he says he slept that night for the first in three nights.

EHRLICH'S REACTION IN TUBERCULAR CHILDREN TREATED WITH KOCH'S LYMPH.

It is known that Ehrlich's reaction may also occur in the urine of those suffering from tuberculosis. As tuberculin causes an exacerbation of the tubercular process, experiments were undertaken by Amiel Feer (*Jahrbuch für Kinderheilkunde*, Vol. XXXIII, No. 3.) to determine whether or not the sulphanilic test would respond more frequently in those who had been previously treated with Koch's lymph. Seventeen children suffering from tuberculosis of the bones, joints and lymph glands gave the reaction in only two cases, while fourteen marked reactions were obtained after the lymph had been used. The earliest time in which the reaction occurred was in five hours, reaching its height in twenty-four hours, and extending at times to the third and fourth days. It seems to bear a direct relation to the height of the temperature. That the reaction may not positively occur is shown by the fact that it failed in cases which were undoubtedly tubercular. The author considers that this reaction occurs more readily in children than in grown persons.

Selected Formulae.

SORE NIPPLES, CHAPPED LIPS, HANDS, ETC.

R. Cocaine hydrochlor. gr. i.
Vaseline. 5 i.
M. Sig.—Apply ad libitum.

LEG ULCER.

Dr. Weismueller praises the action of a dusting powder thus composed:

R. Acid. salicyl. 3 iv.
Acid. borici. 3 ij.
Zinci oxid. 5 ss.
Amyl.
Talc. aa 5 v.

PEDICULI PUBIS.

R. Hydrarg. ammoniat. gr. xxxv.
Balsam. Peruvian. 5 i.
Olei petrolei. 5 i.
Lanolin. ad 5 vij.

HEMATEMESIS FROM GASTRIC ULCER.

R. 1. Powd. acetate of lead. gr. iij.
Hydrochlor. of morph. gr. iiss.
White sugar. 5 iiss.
Mix and divide into six doses. S.—One every two hours.
R. 2. Powdered tannic acid. gr. i.
Powdered opium. gr. ii.
White sugar. 5 iiss.
Mix and divide into six doses.
S.—One every two hours.

—BAMBERGER, *Union Médical*.

FACIAL ERYTHEMATOUS LUPUS.

Brocq recommends the following formula in the local treatment of this disease:

R. 1. Salicylic acid. 0.50 grammes.
Lactic acid. 0.50 "
Benzoic acid. 0.75 "
Oxide of zinc. 2.00 grammes.
Vaseline. 17.00 "
M. Sig.—Locally applied.
R. 2. Salicylic acid. 1.00 gramme.
Pyrogallic acid. 2.00 grammes.
Vaseline. 20.00 "
M. Sig.—Apply at night.

—*Le Bulletin Medical*, Feb. 28, 1892.

GRIPPAL PNEUMONIA.

According to Fiessinger, the most valuable drug in the treatment of the above affection is caffeine. The author recommends the following combination, in hypodermic injection:

R. Caffeine. 2.50 grammes.
Bismute of sodium. 2.00 "
Distilled water. q. s. for 10 c. c.
Of this solution, 20 centigrammes should be administered at each injection.

—*Le Bulletin Medical*, March 2, 1892.

CORYZA WITH ANOSMIA.

Having reduced the hypertrophic condition of the mucous membrane by the ordinary means, Ragonesu institutes the following: 1. Twice a week the membrane touched with a ten per cent. solution of chloride of zinc; 2. During the following eight days, insufflations are applied four to five times a day, of this powder:

R. Acetanilide. aa 2.40 grammes.
Iodol.
Oxychloride of bismuth. 15.00 "

For the following eight days the author recommends the following powder:

R. Sulphate of strychnine (neutral). 0.05 gram.
Pulverised tobacco.
Oxychloride of bismuth. aa 5.00 grams.

The alternate use of these two powders in the manner indicated has given the most satisfactory results.

—*Rev. de Laryngologie, d'Otologie et de Rhinologie*, No. 5, 1892.

FOR NEURALGIAS.

Gouguenheim (*Rev. gen. de clin. et de Therap.*) recommends the following in the treatment of the above:

R. Exalgine. 0.25 to 0.75 gramme.
Alcohol (90 p. c.), q. s. to dissolve.
Syrup. 10.00 grammes.
Distilled water. 50.00 "

M. Sig.—To be taken in the course of the day, one-half at 2 o'clock, and the other at 5, in the afternoon.

—*Gazette Medicale de Paris*, March 12, 1892.

OINTMENT FOR CRACKED NIPPLES.

Vinay recommends the following:

R. Aristol. 4.00 grammes.
Liquid vaseline. 50.00 "
M. Sig.—To be applied by a camel's hair brush.

—*Gazette de Gynécologie*, No. 137, 1892.

CHRONIC TONSILLITIS.

After the excision of the tonsils, Gampert (*These de Paris*) recommends the local application of the following mixture to the operated parts:

R. Iodine. 0.30 grammes.
Iodide of potassium. 0.50 "
Glycerine. 50.50 grammes.
Water. 10.00 "

After the application, the same author advises the use of a borated or iodated gargle.

—*Rev. de Laryngologie, d'Otologie et de Rhinologie*, March 15, 1892.

INJECTIONS FOR CHRONIC CYSTITIS.

ULTZMANN recommends the following prescriptions in the treatment of this troublesome condition:

R Crystallised carbolic acid.....gr. xv.
Distilled water.....5 flss.
Dissolve, and mix with equal parts of hot water at the moment that the liquid is to be injected.

Or the following:

R Boric acid.....3 ss.
Glycerin.....5 l.
Distilled water.....5 s.
Make a solution, and mix with equal parts of warm water at the moment of employment.

Either one of these solutions, when warm, may be used for washing out the bladder in cases of chronic cystitis. When the vesical secretion is catarrhal and has a bad odor, the following injection is useful:

R Nitrite of amyl.....gtt. v.
Distilled water.....5 iv.
Mix, and add a tablespoonful of this solution in the proper quantity of water for a vesical injection.

—*L'Union Médicale*, No. 12, 1892.

HYPERCHLORIDRIA.

Dr. L. Boaz (*La Semaine médicale*, No. 6, 1892) advises the following in dyspepsia with over-acidity:

R Calcined magnesia.....grams 15
Carbonate of bismuth.....55 grams 5
Carbonate of soda.....
Extr. belladonna.....55 grams 10-20
Ext. nux vomica.....

A teaspoonful of this powder thirty minutes after each meal.

HYDRASTIN IN UTERINE HÆMORRHAGES.

Instead of being employed hypodermatically in severe menorrhagia and metrorrhagia from myomas, hydrastin may be given internally according to formula:

R Hydrastini hydrochl.....gr. viij.
Fulv. et. succi. liquoritice q. s. ut fiant pill. No. 10.
Consp.

Sig.—One to two pills daily. If there be hæmorrhage, two pills daily. In cases of menorrhagia, one pill daily may be given for several days before the time of the expected hæmorrhage.

—*Therapeutische Monatshefte*, No. 6, 1890.

HYPODERMIC TREATMENT OF METRORRHAGIA.

Dr. Baroni has used the following successfully in metrorrhagia from myomata of the uterus:

R Ergotin crystallizat.....55 gr. ij.
Acid lactic.....15 v.
Aqua lauroceras.....q. s. ad 55 ij. M.
Aqua distillat.....
Sig.—Inject hypodermically twelve to sixteen drops at a time.

—*Gazetta degli Ospitali*, No. 22, 1890.

FOR GOUT.

The new medicament, piperazine, has been employed by Vogt and Bardet, with asserted success in the treatment of gout. One gramme of the drug is dissolved in some mineral water (500 grammes), to be taken in glassfuls in the course of the day. The same authors recommend the following as a local treatment:

R Piperazine.....1.00 to 2.00 grammes.
Alcohol.....30.00
Water.....80.00
M. Sig.—External use.

—*Journal de Médecine de Paris*, March 20, 1892.

PASTE FOR INFANTILE ECZEMA.

R Tr. campho-phenique.....1.00 grammes.
Bismuthi subnitrat.
Zinci carbonat.
Amyli
Vasolini
Lanolini anhydr.....55 2.00 grammes.

As a carminative, the following mixture is excellent:

R Tr. columbee.....5 ij.
Spts. ammon. aromat.....5 jss.
Tr. cardamomi comp.....q. s. 5 ij.
M. Sig.—3 ss pro re nata.

—WENDE, *Buffalo Medical and Surgical Journal*, January, 1892.

FAVUS.

Dr. Henry W. Stelwagon gave the following treatment for Favus: Wash the head, using sapoviridis, and allow the lather to remain on the head for ten to thirty minutes. Remove the hair from the affected area and apply the following ointment:

R Unguent sulphuridis.....5 iv.
Unguent picis liquid.....5 ij.
Unguent hydrarg. nitratis.....5 ij.
Acid carbolic.....15 ss. M.

—*Coll. Clin. Rec.*

DEATH IN AN INFANT FROM LARYNGEAL OBSTRUCTION BY VOMITED MILK-CURD.

Demme (*Bericht des Jenner'schen Kindersp.*, Berne, 1891) has reported the sudden death of a dyspeptic child, ten months old, without recognizable cause, in which at the autopsy the esophagus and entrance to the larynx were found occluded by a coagulum of cows' milk ejected from the stomach by vomiting and causing asphyxia.—*Centralbl. für die gesammte Therap.*, x, 3, p. 171.—*News*.

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Leading Articles.

THE ETIOLOGY OF PLEURITIS.

In early medical history the problem regarding any disease which the physician was called upon to answer, was the question as to the most efficient therapy. With the gradual advance of medicine the question of the pathology of the disease, and closely connected with this its etiology, assumed the greater importance. The precise study and investigation of the etiology of disease has one great end in view apart from the therapeutics, viz., prophylaxis. The most important problem before the profession is prevention rather than cure.

It has been but a few years since that both profession and laity considered certain contagious and infectious diseases incident to childhood as entirely unavoidable; and, indeed, mothers of not many years ago were wont to expose their children when in robust health to these diseases, when consequently likely to endure them with safety. It was with a feeling of almost boastful security that our parents would tell of their children having had measles, diphtheria, whooping-cough, scarlet fever, mumps, etc., but would perhaps add with regret "but he has yet to have chicken-pox." Prior to the introduction of vaccination, small-pox was regarded as being one of the most likely of diseases. Poor children! Is it not a wonder that the startling infant mortality of a few years ago was not even greater?

As the profession has gradually awakened to the possibility of the prevention of disease, and dare even look forward to a not distant period when many of the scourges of mankind will be stamped out, the study of the etiology is assuming an ever-increasing importance.

Pleuritis is a disease the etiology of which has been most obscure until the discovery of the tubercle bacillus by Koch seemed to throw additional light upon the

subject. In this connection we would refer our readers to a most interesting contribution on the subject: a lecture by Dr. A. Fiedler, delivered before the Society of Natural and Physical Sciences of Germany, and discussed at length in the *Medicinische-chirurgischen Rundschau*, the *Medicinische Neuigkeiten* and elsewhere.

Although phthisis plays the most important rôle in the ætiology of pleuritis, and the majority of pleurites spring from a tubercular origin, yet there remain a number of inflammatory processes of the pleura—without reference to the carcinomatous and pyæmic pleurites—that have nothing whatever to do with tuberculosis. We refer to the frequent and suddenly developing cases of bilateral pleuritis. The majority of these inflammations Fiedler regards as true rheumatic affections, occasioned by the same noxious element—a plasmodium, bacillus or coccus—that is the ætiological factor in acute articular rheumatism. Again, the same infectious matter which to-day in one individual may cause rheumatic polyarthritis, may tomorrow in another cause pleuritis—that is, inflammation of another serous membrane. The localization of the rheumatic poison may occur in the most varied organs. At one time, as is the rule, it may invade one organ, while at another it may affect several organs simultaneously. Although the pathogenic organism may as yet be unknown to us, yet the entire affection and the entire course of acute polyarthritis point to the correctness of the theory of the infectious character of the disease.

As the most probable entering portal of the infectious substance, Fiedler, as well as many other authorities, regards the tonsils as such, and also the mucous membrane of the pharynx. This for the reason that at the outset of rheumatic disease these parts are very frequently reddened, swollen, and indicative of an irritated condition

quite different in character from an angina follicularis, and which is in all probability due to an invasion of streptococci. Fiedler believes in the existence of a rheumatic angina, and claims that under certain circumstances the infectious matter may be confined to the tonsils, in which case the activity of these may prevent a general infection.

For this reason it would be well to treat this class of anginae with salicylic acid or other anti-rheumatic remedies, in order to abort, if possible, a general infection. Regarding the nature of the infectious matter, Fiedler is of the opinion that in this class of pleurites we are dealing with an amoeboid or plasmodium similar to that of malaria. Quinine, as is well known, acts directly upon the plasmodium of malaria, and in polyarthritis salicylic acid and its salts are most efficient, while either drug is entirely wanting in action in infections due to cocci or bacilli. Consequently, Fiedler advances the plasmodium theory. In connection with this theory, Fiedler calls attention to certain confirmatory points observable at the bedside:

- I. That acute rheumatic polyarthritic is very frequently associated with inflammation of the pericardium, endocardium and pleura.

2. That frequently the most intense cases of articular rheumatism are entirely unaccompanied by any affection of the heart or pleura during their entire course, while on the contrary slight cases of articular rheumatism, hardly worthy of the name, so slight, indeed, as to be frequently overlooked, cause the severest complications in the heart and pleura.

We are, therefore, forced to admit the existence of a rheumatic polyarthritic unaccompanied by swelling, painfulness or reddening of the joints—similarly are we forced to acknowledge the possibility of scarlatina sine exanthem.

3. That frequently the same patient during the period of his illness may in turn

be affected by simple articular rheumatism, during a second with pleuritis or pericarditis, and during a third articular rheumatism complicated by cardiac troubles.

Fiedler in his discourse cited the histories of illustrative cases confirming the second and third points mentioned.

He believes that the infectious matter of rheumatism, be it what it may, as soon as it enters the circulation, causes primarily certain general disturbances of the organism (fever etc.) and then localizes itself upon and in the serous membranes, and as a rule causes irritation and inflammation of the synovial membranes, or of the endocardium or pericardium, and frequently of the pleura.

Many affections which do not in the least resemble the symptomological picture of acute articular rheumatism as taught in text-books, nevertheless concur with this disease aetiologically. This fact has already been called attention to by Immermann. Many cases of pericarditis with adhesions of the cardiac sac, and many cases of endocarditis and their valvular complications, and certain cases of myocarditis undoubtedly are caused by rheumatic infection, without the previous or simultaneous existence of articular rheumatism.

In many cases of cardiac trouble in patients who have previously not had acute rheumatic polyarthritis or any acute or chronic infectious disease (scarlet fever, syphilis, etc.), Fiedler claims that if the patient is young, and the existence of atheroma can be excluded, he always suspects that a rheumatic affection has previously occurred, and a slight endocarditis has existed.

That the same pathogenic microorganism which is the aetiological factor in certain forms of acute pleuritis (and inflammation of the cardiac sac) is also the cause of acute rheumatism, Fiedler endeavors further to prove by the undeniable favorable action of salicylic acid and its salts upon the former diseases. In these,

as in the latter, the drug seems to check the development of or even kill the microorganism. On this account Fiedler recommends that such a therapy be instituted as early as possible before there is any extended effusion. He is convinced that large doses of salicylic acid (1 gramme every two hours, or about 6 grammes daily) are frequently able to abort pleuritic inflammations, as well as affections of the joints. If the effusion already exists this therapy, of course, is of no avail. The same may be said (as has frequently been noted by other writers) for the cases of so-called genuine pericarditis.

Fiedler also believes that erythema nodosa, certain neuroses, especially acute polyneuritis, are due to a similar rheumatic infection to that of articular rheumatism.

It may be that Fiedler goes too far, but it must be understood that his arguments do not tend to prove that rheumatism is the cause of certain forms of pleuritis, pericarditis, etc.; simply that their aetiological factor, or in other words the pathogenic germs of these diseases are identical. His arguments, based upon clinical researches, besides experience and careful study, are not only well-grounded, but based upon plausible and rational theories, and backed by many indisputable facts.

It remains now for the bacteriologist to prove or disprove the correctness of his assertions. At all events, his work forms an interesting and valuable addition to medical literature.

In conclusion, we would call attention to a point upon which we laid stress in the beginning of this article: the all-important and ever-increasing value of the study of the aetiology of diseases, which we consider well illustrated in what has been said.

INTESTINAL ANTISEPSIS.

R Salol,
Salicylate of bismuth,
Bicarbonate of sodium..... 54 120 grains.
Sig.—To be divided into 30 powders in capsules. One capsule to be taken before breakfast and before dinner.

—Dujardin Beaumetz.

Book Reviews.

PSYCHO-THERAPEUTICS or Treatment by Hypnotism and Suggestion. By C. Lloyd Tuckey, M.D. Member of the Medico-psychological Association; Membre Fondateur de la Société D'Hypnologie; late Visiting Physician to the Margeret St. Infirmary, London: Ballière, Tindall & Cox, 1891.

The fact that this elementary treatise upon psycho-therapeutics has attained a third edition proves that it has been widely read and approved by the profession. The first edition, which appeared in 1889, was only intended by the author as little more than an introduction to the subject, but each subsequent edition has received such additions that the present volume may be said to fairly represent a synopsis of most of the modern theory and practice of hypnotism.

The book as a whole is an explanation of the scope and limitations of hypnotism in the treatment of disease, of its mode of application, and is also a discussion of the views of such men as Charcot, Liebault and others having practical familiarity with hypnotism as a therapeutic agent. The whole subject is fairly represented, and while the writer of the work is a follower of Liebault in both theory and practice, he does not fail to present the views of the more extreme school, of which the best example is perhaps Charcot. Such careful and scientific studies of this at present much abused and neglected subject are needed, so that, as soon as possible, we may arrive at some definite ideas respecting its proper place in medicine. A careful reading of this work will go far towards dispelling the natural prejudice which has hitherto existed against the use of hypnotic suggestion in the treatment of disease, and cannot fail to convince one that there is a proper field of usefulness for it in medical science.

The work contains an interesting account of Dr. Liebault's treatment as practiced by him at Nancy. The important physiological and psychological facts concerned in hypnosis are fully and accurately stated. The relation of hypnosis to sleep is noted, and the theories of the production of the hypnotic state are carefully presented. The latter half of the book deals with the practical use of hypnotic suggestion, besides giving a large number of clinical cases which were successfully treated by the author and others.

The volume is certainly an addition to the literature of the subject and offers a most excellent résumé.

A TEXT BOOK OF NURSING, by Clara S. Weeks-Shaw. Second edition, revised enlarged, with illustrations. New York: D. Appleton & Co., 1892.

The present edition of this comprehensive manual of practical nursing presents several improvements over its predecessor. A chapter has wisely been added upon the management of gynecological cases, and is thoroughly in accord with the modern advances in that branch. The advances in surgery in recent years have necessitated the addition of many good practical things to the book. It is especially intended as a text-book for training schools, but practitioners will also find it instructive reading, since it contains a number of facts relating to the care of all sorts of cases, from which one may gather helping hints, representing as they do the combined experience of many competent men. The book is creditably printed and bound, contains very few typographical errors, and this improved and modernized edition will no doubt be welcome to those who have occasion to use a modern text-book on this subject. It is a vast improvement on the first edition issued six years ago, and we commend it freely to nurses, and families needing a useful household book, as well as to physicians who may desire to note the latest modes of the art of nursing.

NATIONAL CONFERENCE OF STATE BOARDS OF HEALTH.

The Eighth Annual Meeting of the conference of State Boards of Health will be held in Lansing, Michigan, June 6th, 1892.

The meeting will convene at 10.00 A. M., in the Senate Chamber of the State capitol.

Governor Winans will informally receive the members of the Conference in the Executive Rooms in the State Capitol during the day or evening of June 6th. The Local Committee has expressed the hope that the time of the members of the conference will permit of their visiting the three other State Institutions located at Lansing.

Headquarters will soon be at the Hotel Downey, where special rates have been secured.

C. O. PROBST, M. D.,

Secretary.

Correspondence.

PREMATURE BALDNESS AND ITS CURE.

EDITOR OF THE MEDICAL AND SURGICAL REPORTER:—In the issue of April 23rd, 1892, I notice an extract taken from the *Lancet* on "Premature Baldness and its Causes." This article is a criticism on a previous article of Dr. Tyson's on the same subject. Dr. Tyson's idea is that men are more frequently bald than women, because they wear a heavier and more complete head covering than women. The *Lancet* disputes this cause, and lays it to the natural difference between the heads of men and women as regards hair growth, and gives as this natural difference a superior vascularity of the scalp of women as compared with men. Now it appears to me there is not so great a natural difference as the *Lancet* seems to think, but that dress is really to blame. The place to look for this natural difference is among the savages, who do not wear modern head gear, or perhaps none at all. I think in that case the natural difference would disappear, just as it has in regard to the difference in the manner of breathing between the sexes. Women breathe in the upper part of the lungs, because their clothes will not let them do otherwise, and when observations are made on savage women, they are found to breathe all over the lungs just as much as men. Now in regard to the difference in the vascularity of, especially, the top of the head in men, I think it probably is less than in women, because men generally wear short hair, and a hat that is tight enough to stay on even in a wind. Women seldom do so, but pin the hat to the hair to make it stay on, or else fasten it by an elastic band under the coil of hair back of the head. Now we all know that one can do a comparatively bloodless operation upon the scalp, by placing an Esmarch bandage around the head just above the brows, because by the bandage, the flow of blood is cut off from the top of the head; and I think the close-fitting hat acts very much in the same manner as the Esmarch bandage. Men and women are *sexually* different, in other respects there is not really so much difference as many think.

MARY E. ALLEN, M.D.
PHILADELPHIA.

Periscope.

THERAPEUTICS.

HYDROCHLORATE OF HYOSCINE AS A HYPNOTIC IN INSANE CASES.

Willerup has given hydrochlorate of hyoscine internally, in doses of $\frac{1}{2}$ to 3 milligrammes (r \bar{r} to r \bar{r} grain) twice a day, to calm insane patients and to produce sleep. Shortly after taking the hyoscine some mydriasis is observed, the frequency of the pulse is greater, and the pulse becomes full and hard; later, the face is pale and the frequency of the pulse diminishes. When turbulent insane patients were given hyoscine twice a day they were, as a rule, more quiet and somewhat sleepy during the daytime and slept well at night. In some cases the condition of the patient was evidently ameliorated by the use of the hyoscine; in others the effect was only transitory.—*Hospitals-tidende*, 1891, p. 389.

THE THERAPEUTICAL APPLICATION OF PIPERAZINE.

Piperazine possesses not only the property of dissolving a large proportion (1:2) of uric acid at normal temperature, but forms with excess of uric acid a neutral, readily soluble urate salt. One part of urate of piperazine will dissolve in 50 parts of water at 17° C. (62.6° F.) If we consider that the solubility of urate of lithium at 19° C. (66.2° F.) is stated as 1:368, i. e., that urate of piperazine is at least seven times more soluble than the urate of lithium, and that furthermore piperazine is neither caustic nor toxic, the preference must surely be given this product over all other so-called uric-acid solvents. To learn from personal observation what influence piperazine would exert on human metabolism, in addition to other experiments elsewhere reported, we instituted a series of trials on human subjects. The literature on the therapeutic application of piperazine is as yet meagre. Our sole information was derived from a circular published by the manufacturers, quoting the results achieved by a French physician who had experimented with a sample on himself, and who reported that after taking piperazine the total quantity of uric acid was reduced one-third, and that an excess of urea was eliminated.—Drs. W. Ebstein and Charles Sprague in *Berliner Klin. Wochen*, Nov. 14, 1891.

SYZYGIUM JAMBOLANUM IN DIABETES.

Hildebrandt (*Berl. klin. Woch.*, January 4th, 1892) says it is generally accepted that diabetes mellitus is chiefly brought about by increased sugar production and by its diminished decomposition and consumption. The first factor presupposes an abnormal fermentation under the influence of a sugar-forming ferment. In diabetic urine an increase in diastatic ferments has been found, but no such experiments have been made in regard to the blood. A destruction of ferment takes place in the normal organism, and the author has found that certain organs, like the pancreas, render vegetable ferments inert. Degeneration of the pancreas has been frequently found in diabetes, and extirpation of this organ may induce diabetes in animals. Among the antifermentative remedies used in diabetes, syzygium has been much recommended. The author's experiments show that this drug has a decidedly hindering action, both on plant diastase, as also the sugar-forming ferments in the blood, serum, saliva, and pancreatic extract, but no corresponding effect on pepsin and trypsin. Salicylic and lactic acids, etc., also used in diabetes, gave mostly a negative result in this respect. Syzygium so alters the substratum (starch, glycogen) that it is unassailable by the ferment. Its active principle is not a ferment, nor yet tannic acid. In the body syzygium may act by hindering the conversion of starch into sugar in the alimentary canal and of glycogen into sugar in the tissues. It does not interfere with proteid digestion.—*Brit. Med. Jour.*

THE ACTION OF STRYCHNINE ON THE STOMACH.

The *Khirurgicheski Vestnik* publishes an account of some experiments by Gamper on the action of strychnine on the stomach. Observations were made on seven persons, five of whom were in health, one suffered from gastralgia with excessive secretion of gastric juice, and the last (Gamper himself) from gastric catarrh. The observations extended from twenty to thirty days, and during the first and last week no strychnine was given to excite the stomach. Ewald's test-breakfast was given, and observations were undertaken to determine the volume of gastric juice, the percentage of total acidity, the propor-

tion of hydrochloric acid by weight, the digestive power of the juice, the result of fermentation and the absorbent power and movements of the stomach. Nitrate of strychnia was given at breakfast time in doses varying from 0.002 gramme to 0.005 gramme, but sometimes increased to 0.015 gramme. The activity of the stomach was increased in all respects, with the exception of that due to the ferment and the lactic acid. Gamper attributes the usefulness of the drug to the increased excitability of the medulla caused by the strychnine.—*Lancet.*

STROPHANTHUS IN THE TREATMENT OF GOITRE.

Dr. S. Yount-Lafayette (*La Semaine Médicale*, No. 54, 1891) has obtained very good results in goitre from the use of the tincture of strophanthus, administered three times a day in a gradually increasing dose of ten to sixteen drops.

HYDROGEN PEROXIDE IN EYE DISEASE.

Dr. S. S. Golovin, of Kütai's, (Caucasian Med. Soci., May 14, 1891) relates his experience with hydrogen peroxide in ophthalmic practice. The following is a summary of his conclusions:

1. In healthy eyes hydrogen peroxide causes only trifling smarting, and transient conjunctival congestion; in diseased eyes—especially when deep corneal ulcers are present—the medicament may give rise to a more or less intense burning sensation, which, however, quickly disappears of itself.

2. Solutions of hydrogen peroxide are somewhat unstable; but decomposition can easily be prevented by the addition of a small quantity of ether, and by preserving in dark bottles in a dark place.

3. For lotions or irrigations, a 3 per cent. solution may be employed; for collyria, 10-15 per cent. solutions.

4. The best results from hydrogen peroxide are obtained in corneal affections; simple ulcers rapidly disappear, without being complicated by purulent infiltrations; suppurating ulcers speedily become cleaner and healthier; infiltrations undergo absorption; and healing takes place without perforation of the cornea occurring. In hypopyon-keratitis, hydrogen peroxide is also valuable; if the instillations be made

regularly and thoroughly, even cases in which operative interference would be necessary are found to yield to the remedy.

5. Hydrogen peroxide is serviceable also in conjunctival affections—particularly phlyctenular conjunctivitis, and acute gonorrhoeal ophthalmia (the instillations being repeated not less than 4-5 times a day, or even every two hours.) In simple acute and chronic diffuse conjunctival catarrhs, and in trachomatous or follicular conjunctivitis, hydrogen peroxide seems to be useless.—*Mercks Bulletin*.

MEDICINE.

TUBERCULOUS LARYNGEAL TUMORS.

Avellis (Frankfurt-a-M.) gives an interesting paper on Tuberculous Laryngeal Tumors, in the *Deutsche Med. Woch.*, Nos. 32-33, of 1891. He speaks extensively upon the subject and relates his own cases, which tend to show that polypi, which resemble in every way fibromata, are sometimes of a tuberculous nature.

1. Patient, 25 years old, had been hoarse for some months; on the right vocal band, upon its free margin, was made out a polypus the size of half a pea; the growth being pedunculated, the growth resembled a fibroma, but upon microscopical examination it was found to be of a tuberculous character; not until ten months later was the first indication of lung trouble observed.

Female, aged 40, had a tumor springing from the left vocal cord; growth much resembled a polypus, but further examination showed typical tuberculosis.

3. Patient, aged 19 years, had large tumor on right vocal band, ulceration of posterior wall; lung affection came on later.

4. Patient, 32 years of age, growth on right vocal band; operation, seven months later, ulceration took place and disease of lungs quickly followed.

5. Patient, aged 39; upon the posterior wall was observed a small tumor, which was looked upon as phthisical, but upon further examination it proved to be simply thickened mucus membrane; sometime later, however, a typical tuberculous ulcer appeared upon the posterior wall and lung disease followed.

6. Patient, aged 49 years; in the anterior angle (commissure) was discovered a

red-grayish tumor, about the size of a cherry; operation was performed with Gollstein forceps; typical tuberculous ulcer followed and the following year an ordinary laryngeal phthisis was present.

This report tends to show that tumors of a tuberculous nature are not so rare as sometimes supposed, and in every case where a tumor is present the lungs should be examined and if such tumor be removed, careful microscopical examination should be made.

THE SEMIOLOGY OF VERTIGOS.

Paul Blocq and Ovanoff (*Le Mercredi Medical*, October 7, 1891) divide vertigos into apoplectic, and vertigos proper. Of the latter they write: Vertigo is essentially a sensation. The patient loses his equilibrium, feels as if falling, or as if turning rapidly, or as if objects about him were moving. The sensation may be present not only while standing, but while lying down. At the same time there is usually a feeling of anguish, often described as a sense of falling. Often the loss of equilibrium causes a fall, but the patient never loses consciousness. Various affections of the senses are also observed, as roaring in the ears, flashes of light and peculiar colors. Sometimes retractions of the skin, cold sweats and especially nausea and vomiting are noted. Opening or closing of the eyes has a different effect in different varieties of vertigo. In some, closing the eyes lessens the sensation; in others, increases it. They divide vertigo into *acute* or *accidental* and *chronic* or *habitual*. Of the latter, there are the *constant* and the *frequent* forms. The causes of vertigo are very numerous. They are conveniently arranged in four classes: (a) So-called physiological vertigo; (b) toxic. Of the physiological, are those caused by rotation, high altitudes, the sight of rapidly moving bodies. Seasickness is between these and nervous vertigos. Of these, they note neuropathic, hysterical and tetanic. Certain cerebral affections also give rise to vertigo, locomotor ataxia and disseminated sclerosis. The organs of sense give rise also to vertigo, especially those of sight and hearing. The symptomatic vertigos are those which depend on lesions of the great organs, as gastric, uterine, laryngeal and those due to arterial sclerosis and heart disease. Under the

toxic vertigos they place those due to diathesis, to infections and intoxications. It seems proved that all of these, whatever be the ultimate cause, are due to affection of the organ of equilibration. This organ comprises the semicircular canals and the cerebellum, the trunk of the auditory nerve and its ganglia, the cerebellar peduncles and the parts of cerebrum and medulla near them. In the diagnosis of vertigo, one excludes the epileptic form by the accompanying loss of consciousness, and the apoplectic by the history of an attack. Syncope also is accompanied by unconsciousness. Hysterical vertigos are distinguished by the other signs of hysteria. When we have excluded these, the question of cause arises. First distinguish the acute from the chronic forms. The cause of the acute vertigos is generally very evident, as the toxic and physiologic. The nervous are of more importance. Among the chronic vertigos, the most important, because most common, is that of Meniere's disease. Others are those of defective vision, of brain tumors and of the diatheses. These can be distinguished by the other characteristic symptoms.—*Univ. Med. Mag.*

SURGERY.

OPERATIVE TREATMENT OF DEFORMITIES RESULTING FROM INFANTILE SPINAL AND CEREBRAL SPASTIC PARALYSIS.

In the *Medical News*, Dec. 19, 1891, De Forest Willard, M.D., Ph.D., states that the deformities of infantile paralysis are preventable by apparatus, but if distortion has occurred, secure the best possible limb by immediate surgical procedure, and in some way make the patient walk. Apparently hopelessly distorted cases can be put upon their feet, and even great deformity does not contra-indicate an attempt to straighten the limb and give the individual the power of locomotion. Atrophied limbs can be straightened and incorporated as a part of the locomotive apparatus. Exercise will develop even badly shrunken limbs and continuous improvement may be expected. In the majority of cases surgical measures are preferable, after which mechanical appliances should be employed. Tenotomy or myotomy, while not curative, promotes the health and happiness of the patient. In spastic cases relapse is more common than

in infantile paralysis, but the great benefit to body and mind secured by locomotion amply repays for the attempt at rectification.

ARTIFICIAL CORNEA.

The *Berlin. Klin. Wochenschrift* publishes a seventh case of transplantation of cornea by Professor V. Hipple, of Konigsberg. There was a dark-brown central discoloration of the cornea, three millimeters in diameter, and reaching down to the membrane of Descemet, which has been caused by the action of nitrate of silver. Cocaine having been applied, the non-transparent part of the cornea down to the membrane of Descemet was cut into by a little trephine, the crown of which was four millimeters in diameter, and carefully removed. The author then excised by the same means a similar piece from the whole thickness of the cornea in a young rabbit, and transplanted this to the eye of his patient. It filled the wound exactly, and was on a level with the rest of the cornea. Iodoform was applied, and both eyes were bandaged. Healing proceeded without any trouble, and in six weeks the patient was discharged with a completely transparent cornea.—*Lancet.*

A NEW SURGICAL PROCEDURE.

A paper was recently read before the Practitioners' Society of New York which was entitled "How to Raise Sunken Noses." At first sight this very descriptive title is calculated to create somewhat distressing reflections with regard to the kind of statement which the author is about to make. "Sunken wrecks" are at once recalled by the term used, and pumping operations, making good leaky defects, and bringing into service balloon arrangements, after the fashion of Baron Munchausen, rush into the mind as possible details in raising above the surface the author's cases of noses which have sunk. But although the author has thus perhaps unwillingly led us astray, in our calculation he soon lets us into the secret of what he really means. He narrated the case of a young lady whose nose had sunk from the absence of the septum. By making an incision underneath the lip and skin he was enabled to introduce a platinum bridge, which held up the skin, while its feet rested on each side of the nasal sep-

tum. At the end of six weeks the result was still satisfactory. The nose was well held up, and no unseemly scarring had occurred, which was likely to result from other operations undertaken for the same purpose.—*Med. Press.*

DIFFUSE FIBROMA OF BOTH BREASTS.

C. B. Porter (*Boston Med. and Surg. Journ.*, March 3d, 1892) reports the case of a woman, aged 38, who three years before coming under notice discovered a hard lump in the upper part of the right breast. The whole breast gradually increased in size. Three months later the left breast also began to enlarge. In course of time they attained such a size that the woman could not work, and could stand only for a short time. At no time was there any pain. On admission to the Massachusetts General Hospital the following were the dimensions of the two breasts: Right: greatest circumference, 38 inches; length from chest wall to nipple, 17 inches; circumference at base, 23 inches. Left: greatest circumference, 28 inches; length from chest wall to nipple, 14 inches; circumference at base, 23 inches. The skin over them was oedematous and thickened. Throughout both breasts could be felt movable, hardened masses, of irregular outline, varying in size from an orange to a closed fist. There was no tenderness. The left breast was first removed; then, after an interval of three weeks, the right, special precautions for the prevention of hæmorrhage being taken on each occasion. The wound healed well, and the patient made a good recovery, but, when discharged from the hospital, insisted, contrary to advice, on going home, the journey involving a sea voyage in mid-winter, in which she suffered much from cold and sea-sickness. She reached home much exhausted, and in about a week developed erysipelas, first in the region of the right breast, and then spreading over the back and the abdomen. This in four days had markedly faded, when she suddenly aborted of a five to six months' fœtus, and died three hours later in collapse. Her condition was not suspected till she was convalescent from the second operation. Microscopic examination showed the bulk of the growth to be made up of fibrous tissue rich in cells, and holding a good deal of thin serous fluid in its interstices. Embedded in this

were glands acini and ducts widely separated, into the openings of which the fibrous tissue had forced its way. In structure, therefore, the growth was essentially a diffuse intracanalicular fibroma, and not a true hypertrophy of the breast. A table of nineteen cases collected from various sources is given. Sixteen of these were operated on, both breasts having been removed in nine. Only one died. In thirteen of the nineteen cases both breasts were affected. The table shows that the disease usually begins about the time of puberty, the enlargement of the breast going on very rapidly for two or three months, and increasing during the first pregnancy, after that generally remaining unchanged.

OBSTETRICS.

THE PARTURIENT WOMAN'S BED AS USUALLY PREPARED.

Much has been said and written in the last few years regarding the question of antisepsis in midwifery practice, and yet, how little attention has been given to the proper arrangements of the parturient woman's bed, and to the dressing to be applied to the vulva after delivery.

The bed is ordinarily prepared by spreading a rubber or oil-cloth over the mattress, to prevent it from being soiled, while upon it is placed an old ragged quilt, which has seen so many years of service in various capacities as to be of no further use in the household, and, consequently, of so little value that it can be readily parted with and thrown away. Over the quilt may be placed several layers of old cloths which have been accumulating in a drawer upstairs for just such an occasion as this, and, musty and unaired, are seized upon by the nurse, or the kindly assisting neighbor, to make a nice warm bed for the prospective mother. Finally, a sheet is spread over all, and the bed is ready for antiseptic midwifery. Worse than this is the feather bed, of so common use in the country. Now, feathers cost money, and the average feather bed is handed down from mother to daughter, and from daughter to grand-daughter, and the feather renovator is an unknown quantity there. Grand-mother was probably delivered of ten or twelve children on that bed; mother, of as many more; all of the children had scarlet fever, the measles and mumps on grand-

ma's feather bed; brother John, who had typhoid fever, and the husband, who just recovered from erysipelas, both used the good old feather bed, and it would be cruel to put the good wife, when she is to be sick so long, on anything but the soft feathers. A bundle of cloths from the drawer upstairs is placed upon a chair, within convenient reach, the patient is put to bed, with perhaps a sheet pinned around the waist, her long night-gown drawn up from her hips, and is in readiness for the delivery of another daughter to inherit that feather bed.

During the pains of labor the patient rolls and tosses, her night gown works down under the hips, the sheet around the waist slips up under her shoulders. She is delivered with a gush of water and blood; her night gown is soaked and she is wet to the shoulders. Thus wet and cold she lies for half an hour or more, when the old quilt and rags are drawn away, some more rags from the pile on the chair are tucked under her, the wet night-dress is, after much trouble, removed and a roll of the same old cloths is placed against the gaping vulva, the swoolen labiae and the torn perineum.—*Amer. Gyn. Journal.*

RUPTURE OF UTERUS EARLY IN LABOR.

Chercha (*Przeglad Lekarski*, No. 42, 1891) writes on the case of a 4-para, who was suddenly seized with a violent pain in the hypogastrium, to the right, when pregnant at term. The pain passed away, the os was but little dilated, the head was movable and above the brim, the membrane unruptured. There were no labor pains; on the fourth day rigors set in, with fever, tympanites, restlessness and collapse. Hydrocephalus, probable rupture of the uterus, and septicæmia were diagnosed. Chercha tried to perform perforation without anæsthetics, but the mother's abdomen was so distended that the foetal head could not be fixed. He then tried version, after dilating the os with bags; but as he then reached the foetal head he perforated and nearly a pint of water escaped. Yet neither the cranioclast nor the crochét would hold securely, so Chercha seized the leg and turned, so delivering a macerated child. After its birth an abundant brownish foetid fluid escaped. In removing the placenta he found that it

lay partly in the abdominal cavity, there being a rupture in the uterine wall to the right. Much hæmorrhage followed. No injections were administered. The intestines, which had prolapsed into the uterine cavity were replaced and the uterine wound was plugged with iodoform gauze (30 per cent.). Parametritis followed, and high temperature continued for six weeks. A small vesico-vaginal fistula remained after the patient had, in other respects, recovered her health. Chercha notes that Hoffman and Simpson have observed rupture of the uterus early in labor not preceded by severe labor pains.—*Brit. Med. Mag.*

TWIN PREGNANCY WITH PECULIAR DISPOSITION OF THE OVA.

Borde (*Gazetta degli Ospitali*, p 133) has reported a case in which the two placentas lay side by side on the lateral and anterior walls of the uterus, and the ova was so related that one capped the other, laterally, like a night-cap. He believes that the two ova entered the womb at the same time, and became attached to the uterus, side by side. In a little while the quantity of liquor amnii was larger in one than in the other. The former, therefore, compressed the latter against the side of the uterus, giving it the peculiar shape just described.—*Univ. Med. Mag.*

GYNECOLOGY.

THE EFFECTS OF OLD PELVIC INFLAMMATION ON PREGNANCY AND CHILDBED.

Blanc (*Arch. de Tocol. et de Gynec.*, January, 1892) opened a discussion on this subject at a meeting of the Paris Obstetrical and Gynecological Society. On the basis of clinical facts, he maintained that perimetritic and parametritic inflammations were much aggravated by pregnancy. During gestation, a great afflux of blood in the direction of the pelvis occurred. This circumstance acted prejudicially on inflammatory foci. Abortion often occurred. The dangers were yet greater after delivery. Blanc related cases where general infection, starting from old inflammatory deposits, occurred during the sixth or seventh day of childbed. Whether this represented auto- or hetero-infection was doubtful. Professor Budin agreed as to

the dangers of old inflammatory deposits after delivery, but observed that infection occurs earlier than the sixth day; very fatal effects are sometimes seen on the second or third. M. Gueniot believed in latent microbism. It was mainly, in his opinion, the debility caused by delivery that allowed of general infection. M. Lucas-Champion-niere admitted that the prognosis was certainly grave, and that in most of such cases that recovered from childbed the old inflammatory troubles were worse than before. Professor Pajot, gave it as his opinion that a woman suffering from distinct abdominal lesions of any kind ought to be cautioned against allowing herself to become pregnant.—*Brit. Med. Jour.*

UTERINE CANCER: CAUSE OF RECURRENCE AFTER OPERATION.

Winter (*Centralbl. f. Gynäk.*, No. 11, 1892) gives statistics throwing light on this subject. In no case did he observe recurrence in the pelvic glands; it is known that in cases not submitted to operation infection of the glands does not occur till late. Recurrence in viscera is very rare after operation (7 cases in 123). Local recurrence is the rule; 116 patients out of 230 who had undergone total extirpation suffered from recurrence. In some of these cases recurrence took place in small pieces of cancerous tissue which were not removed at the operation. Frequently after the removal of cancer of the cervix, universal cancerous infiltration of the parametrium occurred. Winter attributes this to infection through transplantation of cancerous elements during the operation, since when no operation is performed, cancer of the cervix, as a rule, only infects the posterior part of the parametrium. Recurrence in a cancerous fragment not removed, begins in the operation scar, and grows outwards into the parametrium; whilst the universal malignant disease of the parametrium is often quite independent of the scar. This malignant infiltration often grows very quickly and uniformly over the entire parametrium, which is not in favour of its origin in a solitary cancerous fragment in the scar. This infiltration is hardly ever seen after cancer of the body of the uterus or of the canal of the cervix; it is very frequent after cancer of the surface of the cervix, where the instruments used in the course of the operation

come in contact with the cancerous tissue. Hence Winter holds that cancerous infection in the course of operation is a danger not to be overlooked; in many cases it is the sole cause of recurrence, and, when pieces of cancerous tissue are left behind, it aids to make the disease recur in a worse form. Hence, in operating, great care must be taken to guard against the danger of infection. In cancer of the cervical canal and uterine body the cavity should be disinfected and the os closed by suture. In cancer of the surface of the cervix the disease should be scraped away with the sharp spoon, and the surface cauterised before the uterus is removed.—*Brit. Med. Jour.*

THE ANATOMY AND PHYSIOLOGY OF THE FALLOPIAN TUBE.

Milroy (*Glasgow Med. Journal*, 1891, No. 6) has made investigations, the results of which are somewhat at variance with the prevailing views. He describes glands in the mucous membrane lining the fimbriæ, which secrete a viscid fluid when the latter grasp the ovary, the function of which is to cause more intimate union between them, and thus prevent the ovum from escaping into the peritoneal cavity. On account of the number of folds in the mucosa, it seems hardly credible, he thinks, that the ovum is drawn into the ampulla by capillary attraction, assisted by the motion of the ciliæ. The inner end of the ampulla, where the folds are scanty, seems to be the most favorable locality in which impregnation could occur. When impregnated, the writer suggests that the ovum is impelled by a "nervous force" (*vis nervosa*) through the isthmus into the uterine cavity.—*Amer. Jour. Med. Sci.*

PEDIATRICS.

NOCTURNAL ENURESIS CURED BY EXCISION OF LUSCHKA'S TONSIL.

Koerner (*Centralblatt f. klin. Med.*, 1891, No. 23, p. 417) reports the cure of nocturnal enuresis in two girls, one nineteen years old, the other three years, following the extirpation of Luschka's tonsil, which in each case was considerably hypertrophied. This cure was immediate and complete. These cases, therefore, illustrate the important part that nasal obstruction may play in the pathogeny of noctur-

nal enuresis. The coexistence of hypertrophy of Luschka's tonsil and the nocturnal incontinence of urine of childhood (already remarked by Major, Ziem, Bloch, and Schmalz) is, however, so unusual that it is necessary to consider that without the existence of some predisposing weakness of the sphincter vesicæ, adenoid vegetations of the pharynx could not alone excite incontinence.—*Amer. Jour. Med. Sci.*

SUBCUTANEOUS INJECTION OF SALINE WATER IN THE GASTRO-ENTERITIS OF YOUNG CHILDREN.

Demiéville (*Revue Médicale de la Suisse romande*, Nov. 1, 1891) reports a case of severe diarrhœa, with vomiting, in a child, aged four and a half months, and of the successful result which followed the subcutaneous injection of a solution of chloride of sodium. Diarrhœa commenced on October 26th, and continued with but little abatement until the 31st, when the child fell into a state of extreme collapse—pulseless, cold, dusky in hue, and unable to utter a cry. On the next morning an injection was given under the skin of the thighs of a 6 per cent. solution of chloride of sodium. Immediately afterwards massage of the thighs was practiced, to facilitate the absorption of the liquid. Improvement rapidly followed, and the child recovered completely without any recurrence of the diarrhœa or vomiting. The first effect of the injection appeared to be upon the circulation; the pulse improved, and the face became quite red. Whether this was due to the mechanical pressure of the injected fluid upon the walls of the blood vessels, the tension of which had been reduced to the lowest point, or to its direct action as a stimulant upon the cardiac nerves, the author does not enter into any discussion. This improvement in the circulation must rouse to action the central nervous system, depressed from want of nourishment, or possibly by some auto-infection, and thus lead to a restoration of the functions of the various organs of secretion and excretion.

Careful directions are given as to asepsis in this operation, which the author urges is so simple as to present no difficulties either in the method of its application or in the instruments required.

In conclusion, Dr. Demiéville makes a

suggestion which appears worthy of careful consideration. In cases of diphtheria in which septicæmia has occurred, when swallowing is impossible, and nutrient enemata are rejected, when the circulation is almost at a standstill, and death imminent, he believes that subcutaneous injection of saline fluid might prove of the greatest value. It is in this condition that elimination by the kidney is often entirely suppressed, and on this account there is all the more reason to expect from such an injection a salutary effect upon the system.

NURSING BOTTLE.

Budin (*Journ. de Méd. de Paris*, 1891, iii, 483.) gives the following description of a new nursing bottle:

In a rubber cork, which may be used with any bottle, two tubes are placed, bound together; the larger allows the passage of the milk, the other, very small, permits the entrance of air; a nipple of rubber and a flat washer of bone complete the instrument. The tube intended for the passage of air must be very small, in order that the milk may not escape by it when the bottle is reversed, and also that the milk shall not flow too rapidly through the larger tube.

ACTION OF ICE AND ICE-WATER IN DIPHTHERIA

The treatment of diphtheria as employed by Dr. Bleyne consists in the application of ice upon the neck, and the internal use of ice. If ice is not obtainable, water as cold as possible may be used instead. The author claims that cold destroys the bacillus of diphtheria.—*Buffalo Med. Journal.*

HYGIENE.

THE BACILLUS OF MEASLES.

The *Berliner klinische Wochenschrift* of April 18th, contains a paper by Drs. P. Canon and W. Pielicke, Assistant Physicians to the Moabit Hospital, Berlin in which they give the results of researches on the bacteriology of measles recently made by them at the suggestion of the director, Dr. P. Guttman. They point out that cocci have been found by various investigators in the lungs of persons who had died of pneumonia complicating mea-

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ales; and that Babes found micro-organ-
isms not only in the lungs, but the lym-
phatic glands, the mucus of the nasal
fosse, the conjunctival secretion, and in
the exanthematous patches themselves;
he also found cocci in the blood obtained
from the papules, and in one also very
short bacilli. In cultures he obtained
streptococci which bore a resemblance to
the *S. pyogenes*. Canon and Pielicke
made stained preparations of the blood of
fourteen patients suffering from measles,
and in all cases they find "one and the
same" bacillus. The preparations were
made in the same way as in Canon's re-
searches on influenza, and were stained
with an eosin-methylene blue solution.
They now generally employ a solution com-
posed as follows: Concentrated watery
solution of methylene blue, 40.0; $\frac{1}{4}$ per
cent. eosin solution (in 70 per cent. alco-
hol), 20.0; distilled water, 40.0. The pre-
parations were placed from 5 to 10 minutes
in absolute alcohol, and then from 6 to 20
hours in an incubator at a temperature of
37° C. The following solution was also
used with advantage: Concentrated watery
solution of methylene blue, 80.0; $\frac{1}{4}$ per
cent. eosin solution (in 70 per cent. alcohol),
20.0. From two to three hours in an in-
cubator suffice for staining. In the pre-
parations the bacilli were found stained blue,
sometimes uniformly, but frequently much
more deeply at the ends than in the mid-
dle; sometimes only the edges of the middle
portions were stained. The size of the
bacilli is very variable; sometimes they are
as long as half the diameter of a red blood
corpuscle, sometimes they are quite small,
and have the appearance of dipococci; be-
tween these two extremes they show sev-
eral gradations in size. Occasionally they
are of extraordinary length, almost equal
to the diameter of a red corpuscle; in that
case they do not stain uniformly, but pre-
sent three or four colorless spots alternat-
ing with the stained portions. As a rule,
this form of organism does not stain deeply,
the ends in particular often showing a very
slight tinge of blue. These bacilli were
frequently slightly bent, and were found
only in preparations made towards the end
of the disease (sixth day.) The author
believes the bacilli found by them in the
living blood in these fourteen cases of
measles to be a specific kind, and to be the
true exciters of the disease. They are
found in very variable numbers, the first

two or three preparations of one specimen
of blood sometimes showing only a few
bacilli, while on the other hand the field
was sometimes packed close with them at
the very first examination. They fre-
quently occur singly, but in the majority
of cases (12 out of 14) they were arranged
in larger or smaller clusters. Their ar-
rangement in the clusters presented nothing
characteristic except that they often showed
a tendency to lie parallel to each other; in
other cases they lay close behind each other,
and formed obtuse angles. The bacilli
were found during the whole course of the
disease, and in one case even three days
after defervescence; in this case they had
been present in unusually large numbers
at the period of crisis. As a rule, the
bacilli were found most abundantly at the
time of defervescence. In addition to the
fourteen cases referred to, the author ex-
amined the blood of seven children who
had had the measles just before, and in
some of whom the rash had not entirely
faded away. The results of the examina-
tion were negative. They also examined,
about ten hours after death, the blood of
a child who had died of measles without
any lung complication, but the presence of
the bacilli could not be determined with
certainty; in this case the blood had not
been examined during life.

Some of the preparations were stained
by Gram's method; the bacilli remained
unstained, but were as distinct as the red
blood corpuscles. Bacilli of the same shape
as those found in the blood were seen in the
expectoration, and in the nasal and con-
junctival mucus of patients suffering from
measles. In all cases, before the prepara-
tions were made, blood of patients with
measles, obtained by pricking the finger,
was inoculated in glycerine agar, blood
serum, or milk (woman's), but they did
not succeed in cultivating the bacilli on
these nutrient media. More recently they
used chiefly bouillon, inoculating each test
tube with from one to three drops of
blood; generally from six to ten tubes were
used for each experiment. In three cases
they found in the inoculated bouillon
bacilli which agreed in all points with
those found in the blood, but could not be
further cultivated on glycerine agar, blood
serum, or bouillon. The bouillon re-
mained clear for a time, there being a
sediment at the bottom of the tube which
was partly deposited from the inoculated

blood; after some days a slight opacity became visible, and small flakes formed which rose on shaking the tube. In these bouillon cultures the bacilli were found in different forms, sometimes uniformly stained, sometimes resembling diplococci, sometimes more like diplobacilli. Some of them exceeded in length the longest seen in the preparations of blood. The bacilli in these bouillon cultures do not stain by Gram's method, and they display only slight power of independent movement. In one of the three cases referred to, these bacilli were found in large numbers in all the tubes of bouillon (four in number) which had been inoculated with blood; inoculations made at the same time on glycerine agar and blood serum remained sterile. The inoculation was in these cases made towards the end of the fever at the commencement of the crisis; in the blood preparations made at the same time the bacilli were found in considerable numbers. This was the case in which the bacilli were found in the blood three days after defervescence. From the same child blood has been drawn into sterilized tubes, and, after having been kept two days in the incubator, inoculated in bouillon and agar. In one of the tubes containing bouillon bacilli were also found, while glycerine agar inoculated with the same tube remained sterile; here also all attempts at further cultivation failed.

By this method Bruschettini (*Riforma Medica*, January 29th, 1892,) cultivated influenza bacilli obtained from living blood; it was several times employed by Canon and Pielicke in the course of the present investigation, but, except in the case mentioned above, without result. In the two other cases in which bacilli obtained from the blood was cultivated in bouillon, the inoculations were made during the course of the fever, yet bacilli obtained from the blood was cultivated in bouillon, the inoculations were made during the course of the fever, yet bacilli were found in only one or two of the tubes, all the others remaining sterile. The result was also negative in a series of inoculations made from one to two days after the subsidence of the fever. Sometimes, indeed, a few bacilli (two to five) were found in a preparation obtained from blood-inoculated bouillon, after sufficient shaking of the tube and very careful search, but it seems to the authors, doubtful whether this can be

taken as a proof of multiplication of the bacilli. In one case, in which death was due directly to measles, numerous inoculations of the blood were made on different nutrient media, including bouillon, about ten hours after death; all these remained sterile.

Finally, an attempt was made to cultivate these bacilli on blood serum glycerine agar by the method employed by Wertheim for the cultivation of gonococci (*Deutsche med. Wochenschr.*, 1891, No 50), but without result. The blood serum came from a person who was said to have passed through a severe attack of measles seven years previously, and the authors argue that there are special advantages in obtaining this nutrient medium from the blood of persons who have never had an attack of measles, and have, therefore, not acquired more or less immunity against that disease.

Canon and Pielicke concluded by stating that the bacilli found by them in the blood of patients suffering from measles are essentially different from the micro-organism hitherto described in connection with that disease. They admit however, that Babes's "bacilles très courts," which he does not further describe, may be identical with theirs, but he only mentions having found them once, and seems to have attached no importance to the matter.—*Brit. Med. Jour.*

MEDICAL CHEMISTRY.

A DELICATE TEST FOR ALBUMIN IN THE URINE.

Spiegler suggests the following formula for the discovery of albumin in the urine as being the most delicate test we possess:

R	Hydrarg. chlor. corrosiv.....	8 parts.
	Acid. tartar.....	4 "
	Aq. dest.....	200 "
	Sacch. alb.....	50 " M.

The test-tube is filled one-third with the reagent. The urine is filtered and made strongly acid with acetic acid. It is then allowed to flow down the side of the tube, drop by drop, until it lies in a layer over the reagent. If albumin is present, a sharp white ring is seen laying between the two layers of fluid. If it is necessary to test heavy diabetic urine, more sugar may be added to the reagent, in order to raise its specific gravity. It is necessary to decompose any carbonate that may be

present, in order that it may not form a precipitate with the sublimate. But the precipitate may be recognized by the fact that when shaking the liquid the apparently caseous precipitate will disappear and the fluid become clear.—*Boston Med. Surg. Jour.*

DETERMINATION OF MERCURIAL CONTENT OF MERCURIAL OINTMENT.

Thein in the *Bulletin* of the Société Pharmaceutique de Bruxelles, gives the following: Fill a large test tube to within 2 cm. of its top with an aqueous solution of nitrate of sodium (2:5), or of magnesium sulphate (1:2). Add a determined quantity, say 4 gm., of the mercurial ointment to be tested, and place the tube in a warm-bath. On account of the specific gravity of the liquid the ointment at first floats on the surface, but little by little, as the ointment base melts, the mercury collects at the bottom of the tube, until finally each particle separates. Carry a little staff with a button on the end, down through the melted fat, and after cooling withdraw it bringing the fat away, and then collect, dry and weigh the mercury.

PURE BORON

M. Henri Moissan submitted to the Academy of Sciences last week an important essay on the preparation of pure boron. Magnesia mixed with an excess of boric acid and heated gives a mixture of boron, borate of magnesium, and boride of magnesium. By successive washing in acids the borate and the greater part of the boride are eliminated. By the fusion of the remaining boric acid the residue of the boride is oxidized, and, after washing, pure boron is produced. In another paper M. Moissan showed that when boric acid is treated with sodium or potassium great heat is given off, and owing to this heightening of temperature, the greater part of the boron unites with the excess of alkaline metal. When the compound is subsequently treated with water and hydrochloric acid, a mixture is obtained (after desiccation) composed of boron, boride of sodium, boride of iron, hydride of boron, and hydrated boric acid. This mixture, M. Moissan pointed out, had hitherto been regarded as amorphous boron.—*Paris Corresp. of Chem. and Drugg.*

NEWS AND MISCELLANY.

NEW YORK PASTEUR INSTITUTE.

During the second year of its existence (February 18, 1891, to February 18, 1892) 574 persons who were bitten by dogs, cats and other animals applied for treatment. These patients may be divided into two categories:

1st. In the case of 461 of these persons it was demonstrated that the animals attacking them were not mad. Consequently the patients were sent back after having had their wounds attended to during the proper length of time.

2d. In 113 cases the anti-hydrophobic treatment was applied, hydrophobia of the animals inflicting bites having been evidenced clinically or by inoculation at the laboratory, and in many cases by the death of some other persons or animals bitten by the same dogs.

Indigents have been treated free of charge.

The persons treated were: 36 from New Jersey, 22 from New York, 12 from Massachusetts, 8 from Connecticut, 6 from South Carolina, 5 from Texas, 4 from Maryland, 3 from North Carolina, 2 from Missouri, 2 from Ohio, 2 from Pennsylvania, 2 from Arkansas, 1 from Alabama, 1 from Georgia, 1 from Iowa, 1 from Louisiana, 1 from Michigan, 1 from Rhode Island, 1 from Virginia, 1 from Mexico, and 1 from West Indies (Curaçoa).

By the examination of the results, one will see that those obtained at the New York Pasteur Institute are about the same as those reported by the kindred institutions. It is unnecessary to comment upon them, as they will be well appreciated by any unprejudiced mind.

Let us remember that last year 42 deaths caused by hydrophobia have been formally reported of persons bitten by rabid animals, and who were not submitted to the inoculations. This makes about 80 deaths for the period included in our statistics, during which three persons died despite of the treatment. And without taking exception for the patient (Earl) who came only four days after his terrible fight with the dog, if we consider, as they do abroad, that this treatment has produced its full effects only fifteen days after it has been completed, we see that the percentage of those who died after the fif-

teen days following the inoculation has been only 2 out of 298, or 0.66 per cent.

Among the 298 persons treated, 177 have been attacked by animals undoubtedly rabid. If we consider again that statistics indicate 25 per cent. as a low per centage of deaths after bites inflicted by hydrophobic dogs; and then counting only 177 instead of 298 persons bitten, we ought to have had not two or three cases of death, but at least 44. Moreover, 123 persons among the 177 bitten by hydrophobic animals had their wounds inflicted on the face, the head, or the hands. We know that bites of this nature are followed by hydrophobia in a much larger proportion, say at least 40 per cent. The number of deaths ought to be, then, no less than *seventy* among the persons so bitten, who came from the different parts of the country to submit themselves to the Pasteur treatment.

LEPROSY IN JAPAN.

Another missionary who devoted himself to the succor of lepers has just completed his sacrifice by giving his life in their service. Father Testevuide, who may be called the Damien of Japan, established the first leper house in that country in 1886. At that time no provision whatever was made either by the Government or the public for the care of lepers, and it was only by the most persevering efforts that the energetic priest was able to collect sufficient funds to build a leper house on Mount Fusi. This institution he personally managed till his death. His example has been fruitful, and now there are three asylums for the victims of leprosy in Japan, all apparently owing their existence to private charity.—*British Medical Journal*.

PHYSICIANS DO NOT WRITE.

This is the general cry of those who desire to see them come to the front. As the *California Medical Journal* very justly observes, there seems to be a misconception, on the part of the profession in general, on the subject of writing for medical journals. The average practitioner seems to think that none but the editors of the journals or one who is a teacher in some medical college could or should write an article for the perusal and criticism of the general profession; nor lay down theories

and laws to govern others. Poor indeed is the physician who dare not get out of the beaten paths, and may be ruts, of his predecessors, be they his teachers in the college he has attended, or the authors of his text books. Can he blindly follow any of these and be successful? No! Then, if he dare differ with them in his theories and practice why not go on record as differing with his own confreres? This would be a slow world if we all believed and did the same. How did our teachers gain their present status of knowledge and success? Was it not by observance and experience of others? Can't you do likewise? You have not only your teacher's knowledge to build upon, but also that of their predecessors; hence your advantages are greater than those of many professors in our colleges, and you could teach them many wholesome lessons, that you have never been taught, but learned by experience, in general practice. Hence you do yourselves and the progress of medical science an injustice in not contributing to the literature of the profession.—*Med. Review*.

SOCIETY MEETINGS DURING JUNE.

June 1st—Ontario Medical Association, at Toronto.

June 2d—Oregon State Medical Society, at Portland.

June 2d—Rhode Island Medical Society, at Providence.

June 2d—State Medical Society of Arkansas, at Little Rock.

June 4th—American Academy of Medicine, at Detroit, Mich.

June 7th—American Medical Association, at Detroit, Mich.

June 7th—Massachusetts Medical Society, at Boston.

June 8th—South Dakota State Medical Society, at Salem.

June 14th—Medical Society of Delaware, at Dover.

June 15th—Minnesota State Medical Society, at St. Paul.

June 20th—American Association of Andrology and Syphilology at Richfield Springs, N. Y.

June 20th—New Hampshire Medical Society, at Concord.

June 21—Colorado State Medical Society, at Denver.

June 28—Medical Society of New Jersey at Atlantic City.